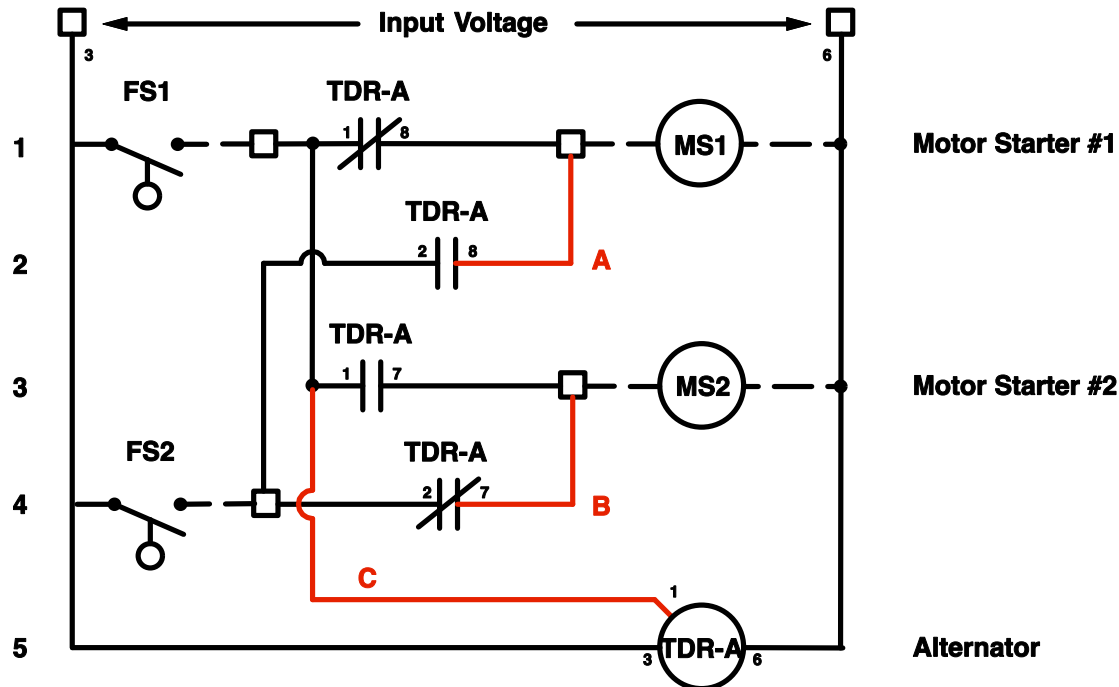


# DUPLEX PUMP CONTROL X-CONNECTION SCHEMATIC TDR-24/240V-AA8-X

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## Save 3 wires on installation!

Using the R-K X-Connection wiring, the 3 connections shown in **RED** are made internally to the TDR-A reducing the wiring time. The pin out numbers shown, only apply to the X-Connection wiring diagram.

Operation of this schematic is:

FS1 closes - MS1 is energized and a control signal is provided to the TDR-A

FS1 opens - MS1 is de-energized, the control signal to the TDR-A is lost and the TDR-A changes its output contacts. Open contacts close and closed contacts open.

FS2 closes - MS2 is energized and a control signal is provided to the TDR-A

FS2 opens - MS2 is de-energized, the control signal to the TDR-A is lost and the TDR-A changes its output contacts. Open contacts re-open and closed contacts re-close

As FS1 closes and opens, the pump operation is alternated between MS1 and MS@ on each cycle.

If both float switches close during operation:

FS1 closes - MS1 is energized and a control signal is provided to the TDR-A

FS2 closes - MS2 is energized

FS2 opens - MS2 is de-energized

FS1 opens - MS1 is de-energized, the control signal to the TDR-A is lost and the TDR-A changes its output contacts. Open contacts close and closed contacts open.

FS1 closes - MS2 is energized and a control signal is provided to the TDR-A

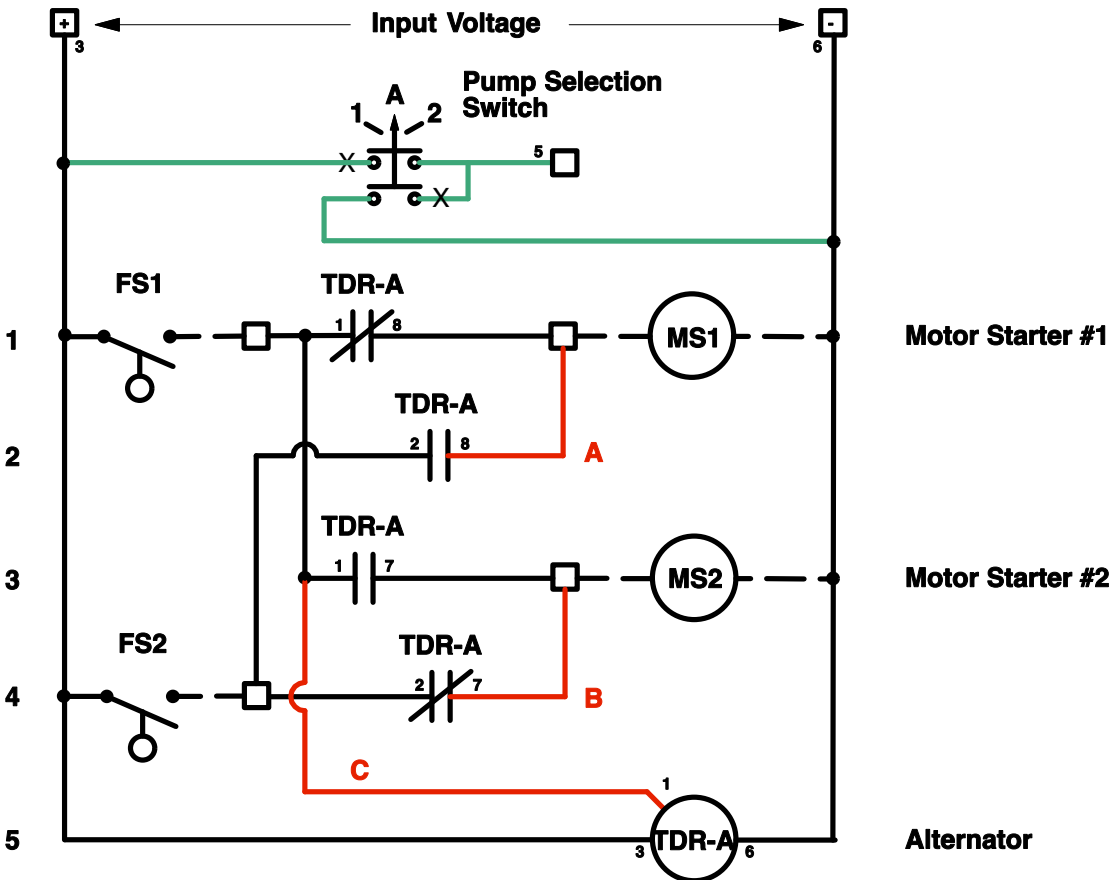
FS2 closes - MS1 is energized

FS2 opens - MS1 is de-energized

FS1 opens - MS2 is de-energized, the control signal to the TDR-A is lost and the TDR-A changes its output contacts. Open contacts re-open and closed contacts re-close

# DUPLIX PUMP CONTROL X-CONNECTION SCHEMATIC WITH REMOTE PUMP SELECTOR TDR-24/240V-AA8-X

April 11, 2011  
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## Save EVEN MORE!

In addition to using the R-K TDR-A X-Connection wiring and eliminating the 3 connections shown in **RED**, you can save even more when you are using a remote (typically door or swing panel remote pump selector switch).

Simply mount your 3-position selector switch with 2 normally open contact blocks, bring 3 wires back to the TDR-A base (in **Green**) and set the "Local-Remote" selection switch on the top of the TDR-A to "Remote".

Based on feedback from the field, using this remote pump selector switch option on the TDR-A, you can save:

1. Pump selector switch logic:
  - a. Any where from 6 to 8 contact blocks on the pump selector switch (material savings)
  - b. Approximately 7 to 8 wires and 12+ connections (labor time)
2. Sub-panel logic:
  - a. 2 or more relays and sockets (material savings)
  - b. Approximately 7 to 8 wires and 12+ connections (labor time)
  - c. Sub-panel/Din rail space