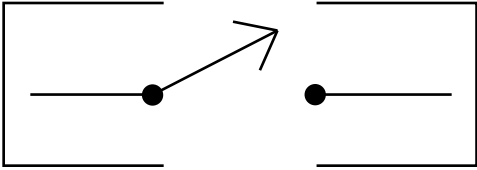
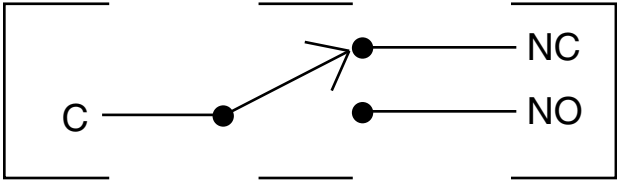
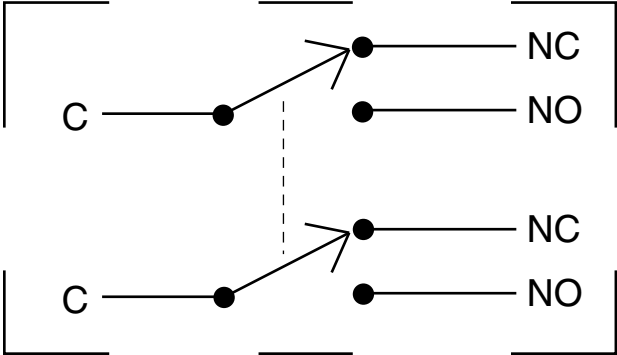
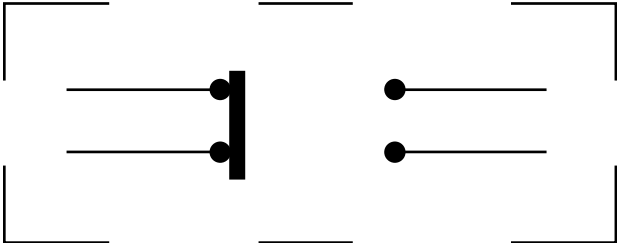
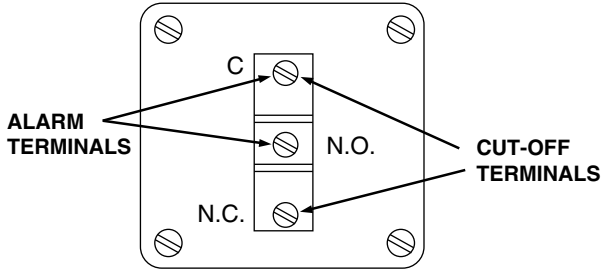


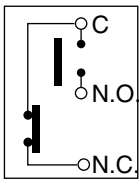
## Types of Electrical Switches

Type	Description	Where Used
 <p style="text-align: center;"><b>SPST</b> (Single Pole, Single Throw)</p>	Make <b>or</b> break one circuit.	Series 150S boiler control pump switch Series 11 switch
 <p style="text-align: center;"><b>SPDT</b> (Single Pole, Double Throw)</p>	Make one circuit <b>and</b> break one circuit with common terminal.	Series 2 switch Series 150S boiler control burner switch & alarm All flow switches Series 150E pump & burner switches
 <p style="text-align: center;"><b>DPDT</b> (Double Pole, Double Throw)</p>	Make two circuits <b>and</b> break two circuits with two common terminals.	Series FS7-4D flow switch Series FS4-3D flow switch Series AF3-D flow switch Series FS5-D flow switch
 <p style="text-align: center;"><b>SPDB</b> (Single Pole, Double Break)</p>	Make one circuit <b>and</b> break one circuit with no common terminals.	Series 5 & 6 switches

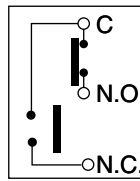
## Switch Operation



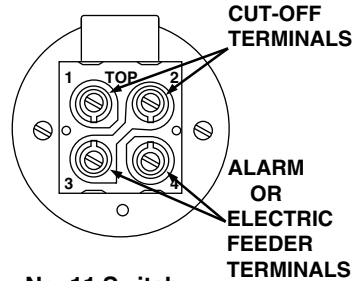
**No. 2 Switch**  
Used on McDonnell No. 47-2,  
No. 247-2, No. 51-2, No. 51-S-2,  
No. 53-2 and No. 63



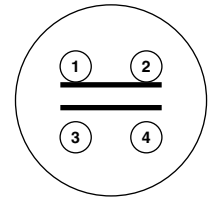
Water level normal.  
Burner on—alarm off.



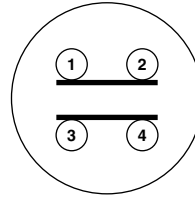
Low water level. Burner  
off—alarm on.



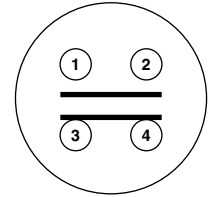
**No. 11 Switch**  
Used on McDonnell No. 64,  
No. 67, No. 61 and all "Built-  
in" type Low Water Cut-offs.



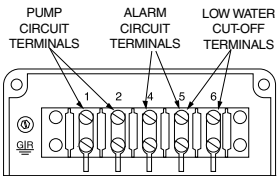
Water level normal.  
Burner on—electric  
feed valve or alarm  
off.



Water level dropped to  
electric feed valve or  
alarm operating level. Burner on.



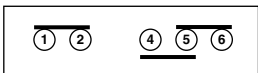
Low water level.  
Burner off—electric  
feed valve or alarm  
on.



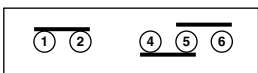
**Series 150S Switch**  
Used on No. 150S and 157S  
Series.



At Normal Operating Level  
Boiler feed pump off—burner  
on—alarm off.

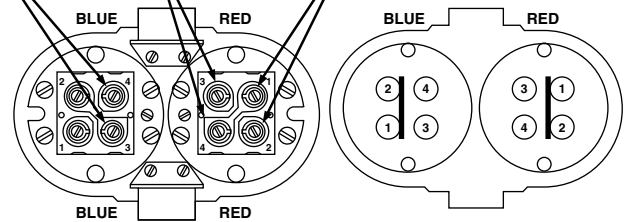


As Water Level Drops  
Boiler feed pump on—burner  
on—alarm off.



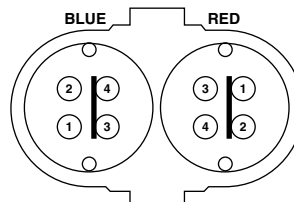
At Low Water Cut-Off Level  
Boiler feed pump on—burner  
off—alarm on.

**PUMP TERMINALS    ALARM TERMINALS    CUT-OFF TERMINALS**

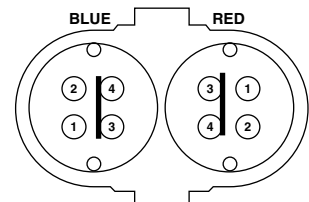


**No. 5 Switch**  
Used on 93, 193, 94 and  
194 Series.

At Normal Operating Level  
Boiler feed pump off—  
burner on—alarm off.



Boiler feed pump  
on—burner on—alarm off.



At Low Water Cut-Off Level  
Boiler feed pump on—burner  
off—alarm on.