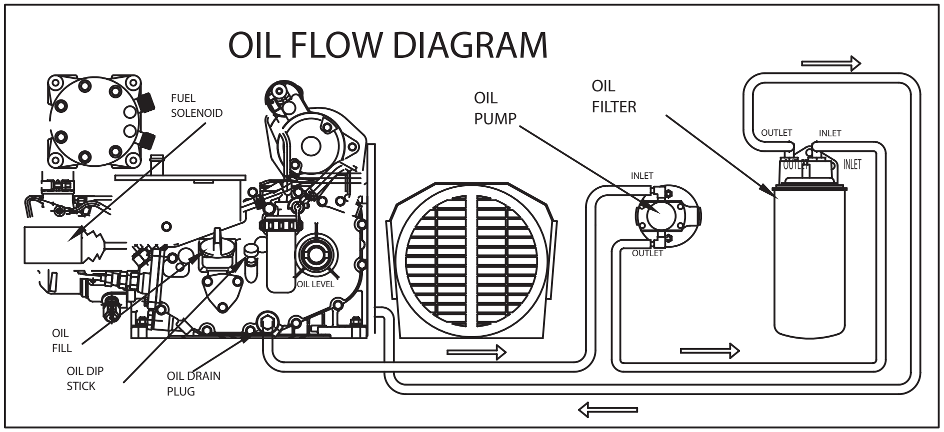
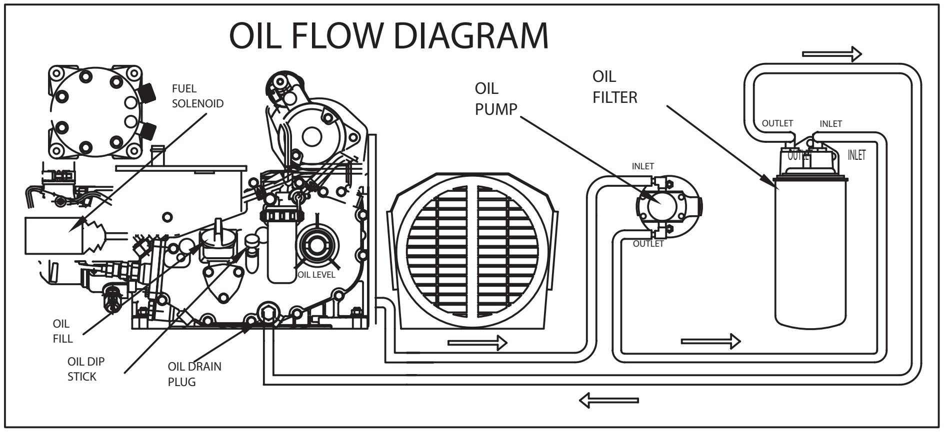
OIL REVERSAL
BEGAN WITH JUNE 2006 PRODUCTION

ALL POWER SECTIONS WITH AN ELECTRIC OIL PUMP SHOULD HAVE THE OIL LINES ROUTED LIKE THE DIAGRAM AFTER JUNE 2006

OIL LINE ROUTING AFTER JUNE 2006

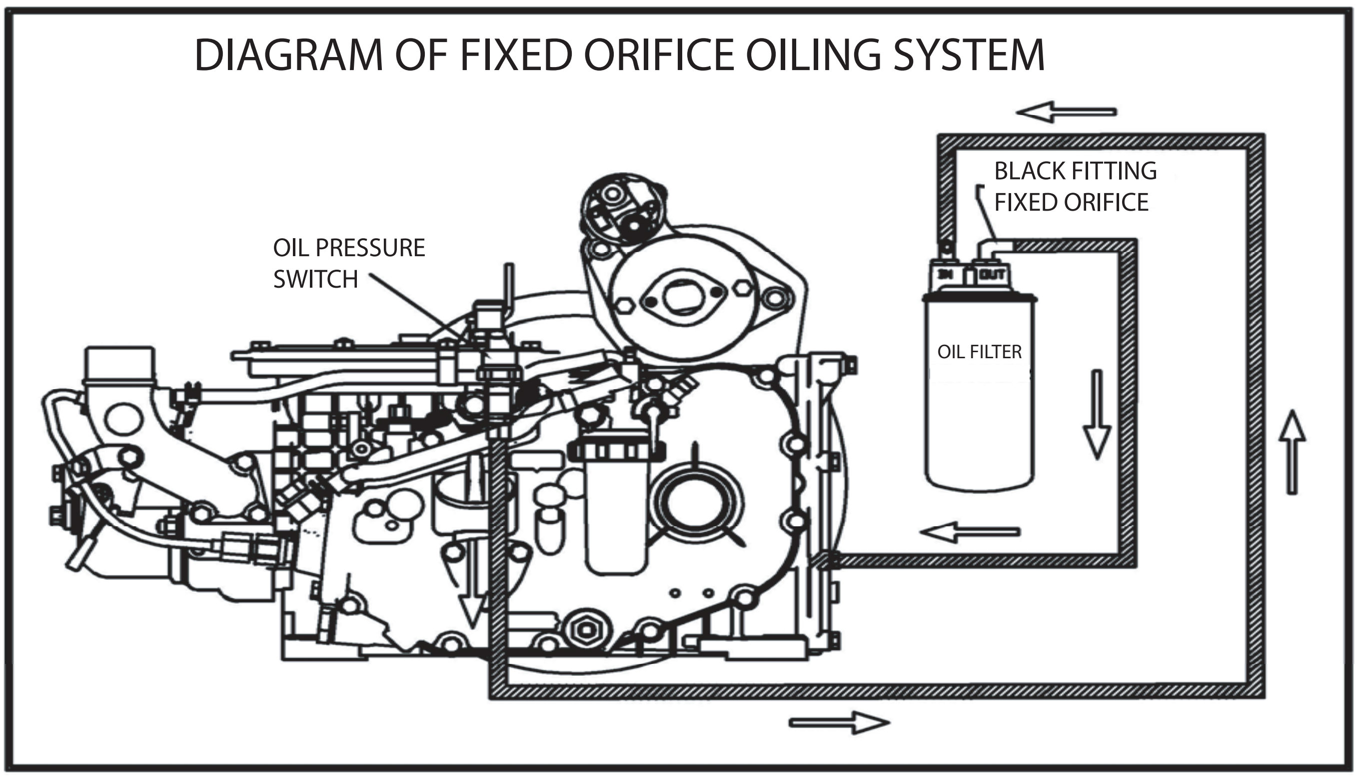


OIL LINE ROUTING BEFORE JUNE 2006



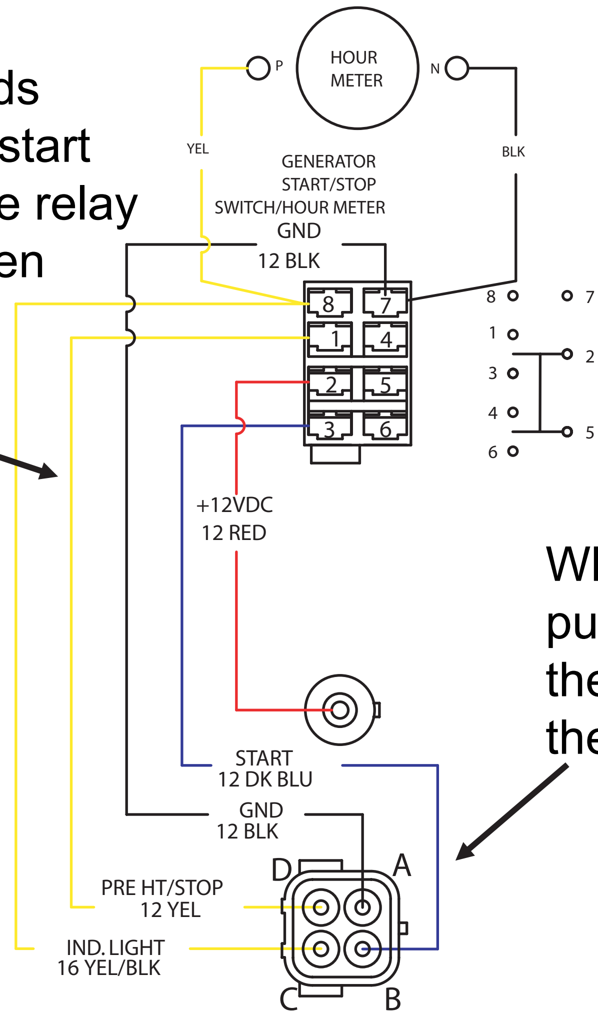
2007 & LATER OIL DIAGRAM

NOTE: THE FITTING IN THE OUTLET SIDE OF THE OIL FILTER HOUSING SHOULD BE BLACK IN COLOR AND HAS A 30 THOUSANDS ORIFICE INSIDE TO SLOW THE OIL FLOW DOWN.



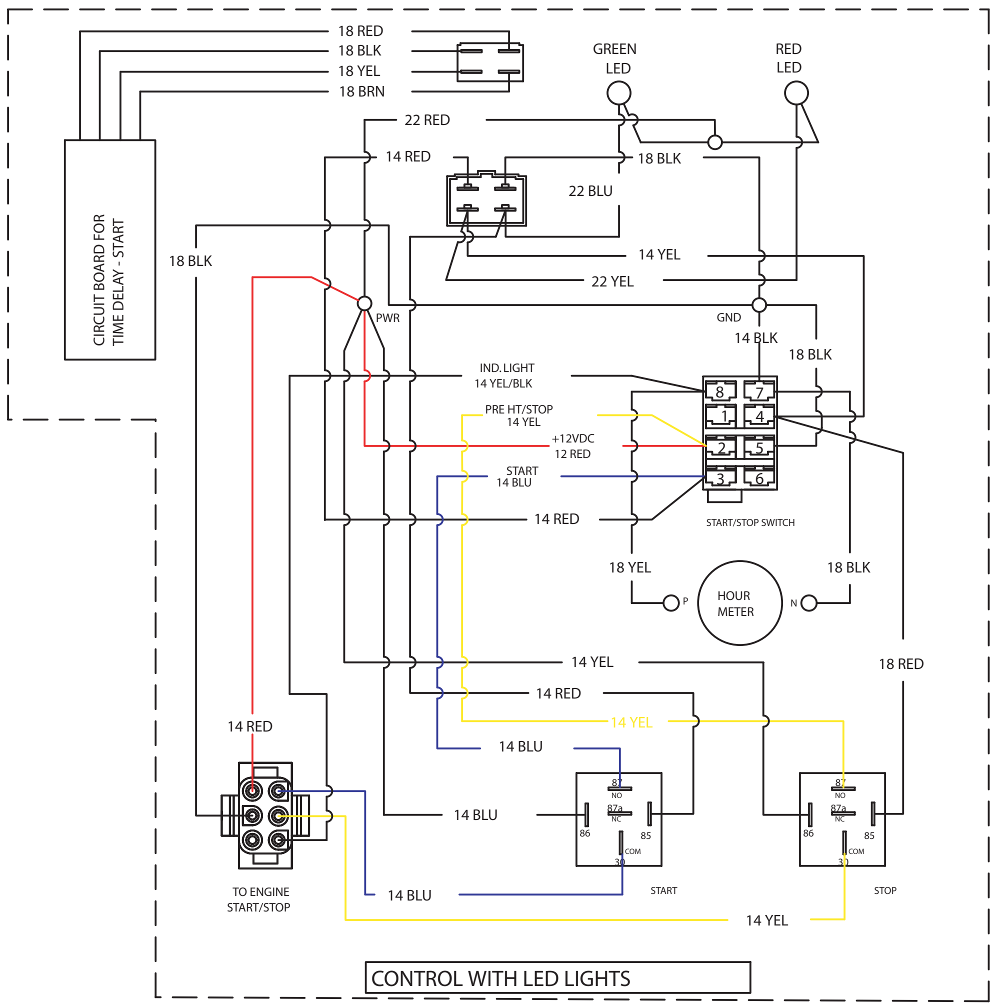
START/STOP CONTROL PANEL CIRCUIT

When the start/stop switch is pushed down in the stop position the yellow wire sends 12volts out and triggers the start stop relay. This switches the relay and to stop the engine. When the engine is not running you can press the switch to manually heat the glow plug.



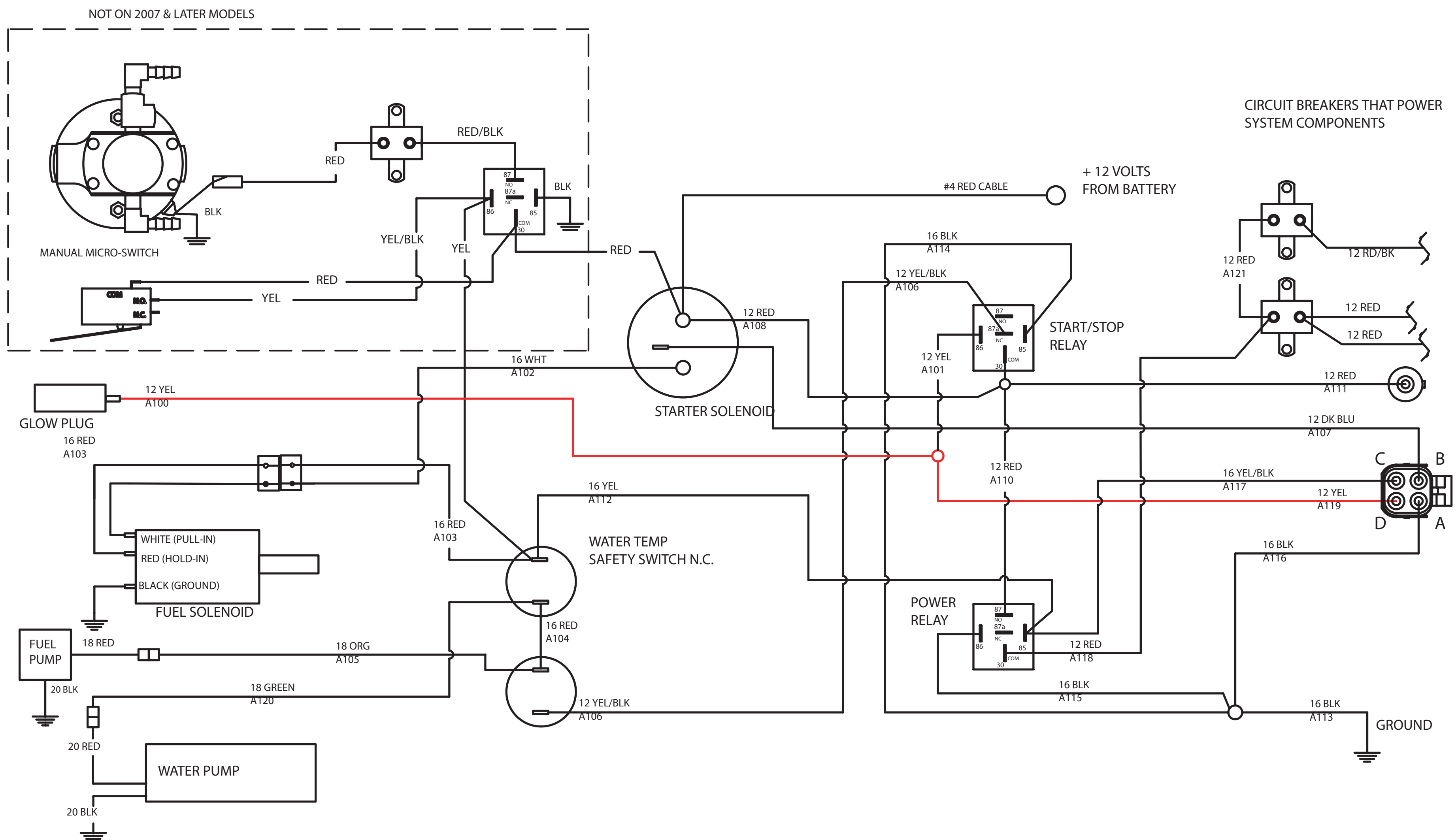
When the start/stop switch is pushed down in the start position the blue wire sends 12 volts to the starter to engage it.

START STOP CONTROL PANEL LED



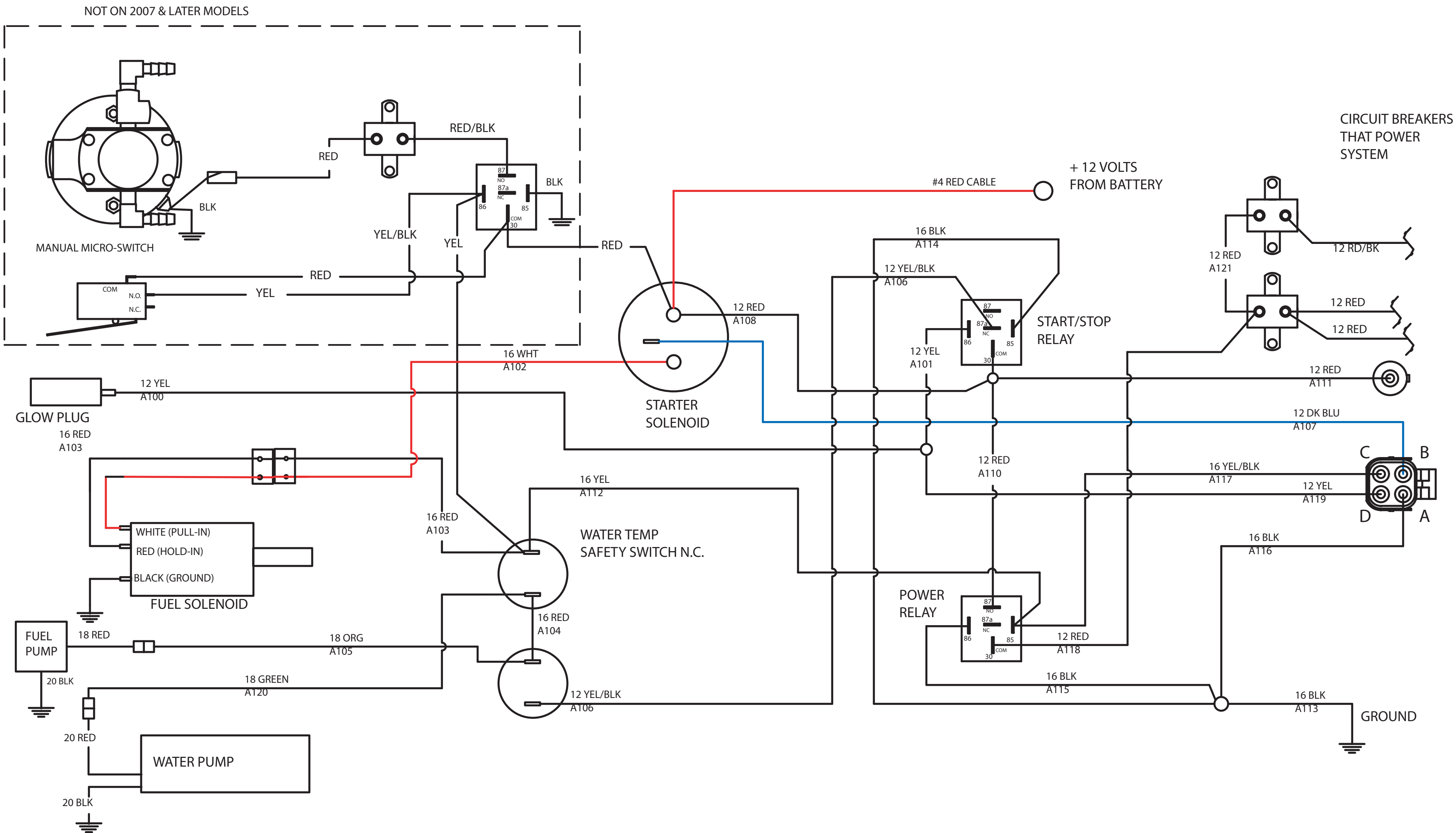
GLO PLUG CIRCUIT

When the start/stop switch is pushed down in the stop/preheat position the **yellow** wire gets 12 volts to heat the glow plug

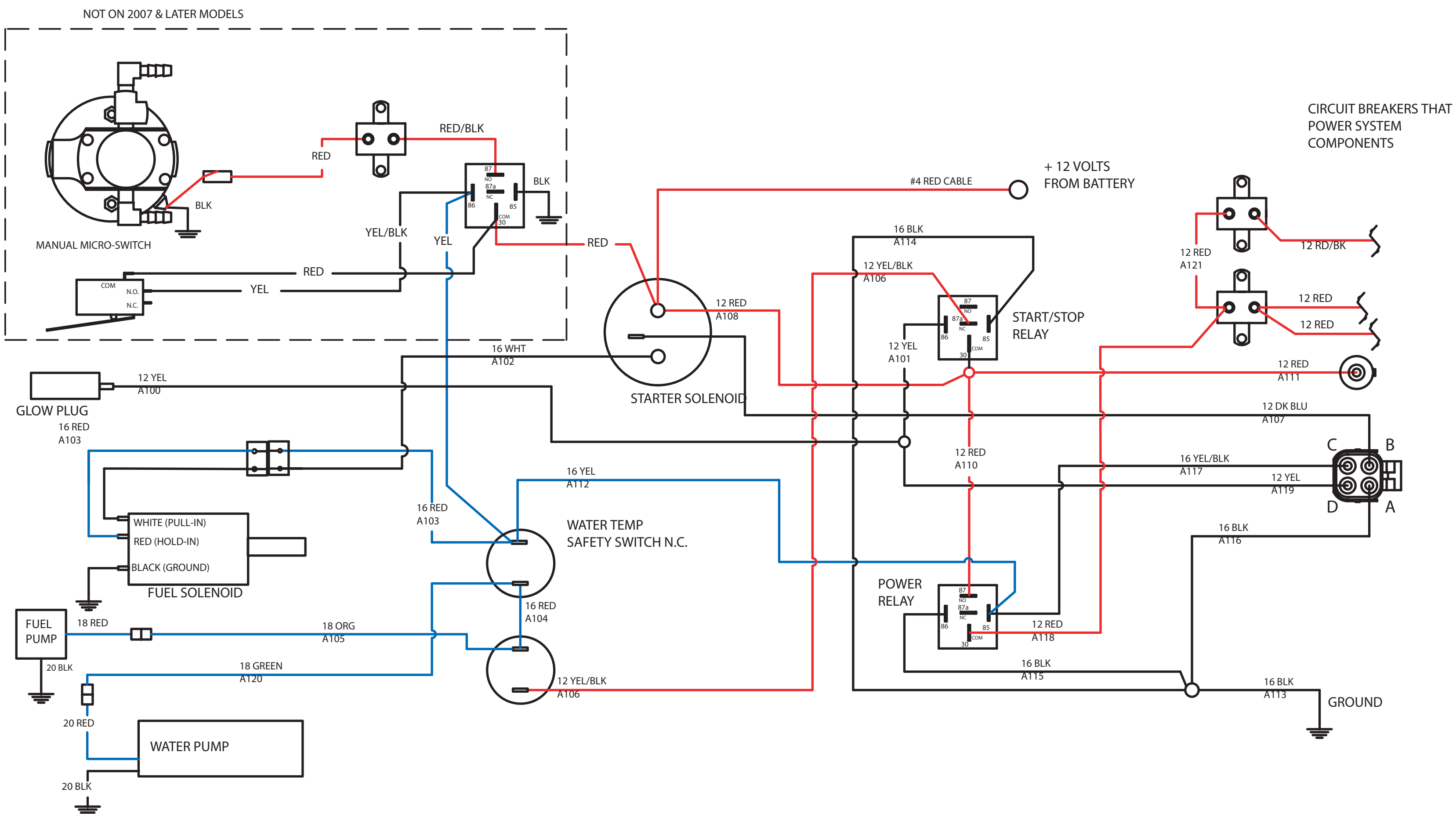


START CIRCUIT

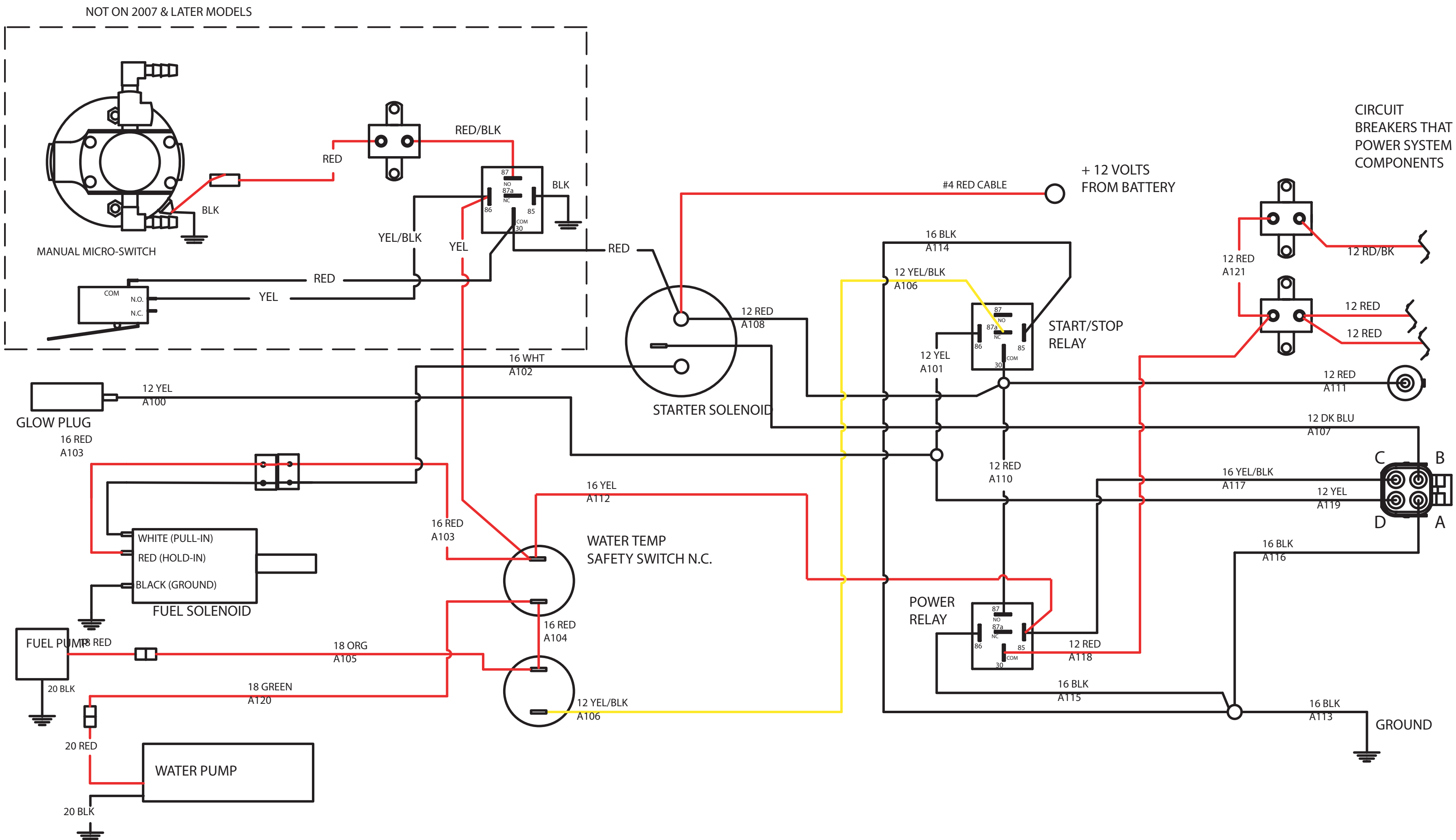
THE **BLUE** WIRE ENGAGES THE STARTER.
THE **WHITE** WIRE PULLS IN THE FUEL SOLENOID.



OIL PRESSURE SWITCH CIRCUIT



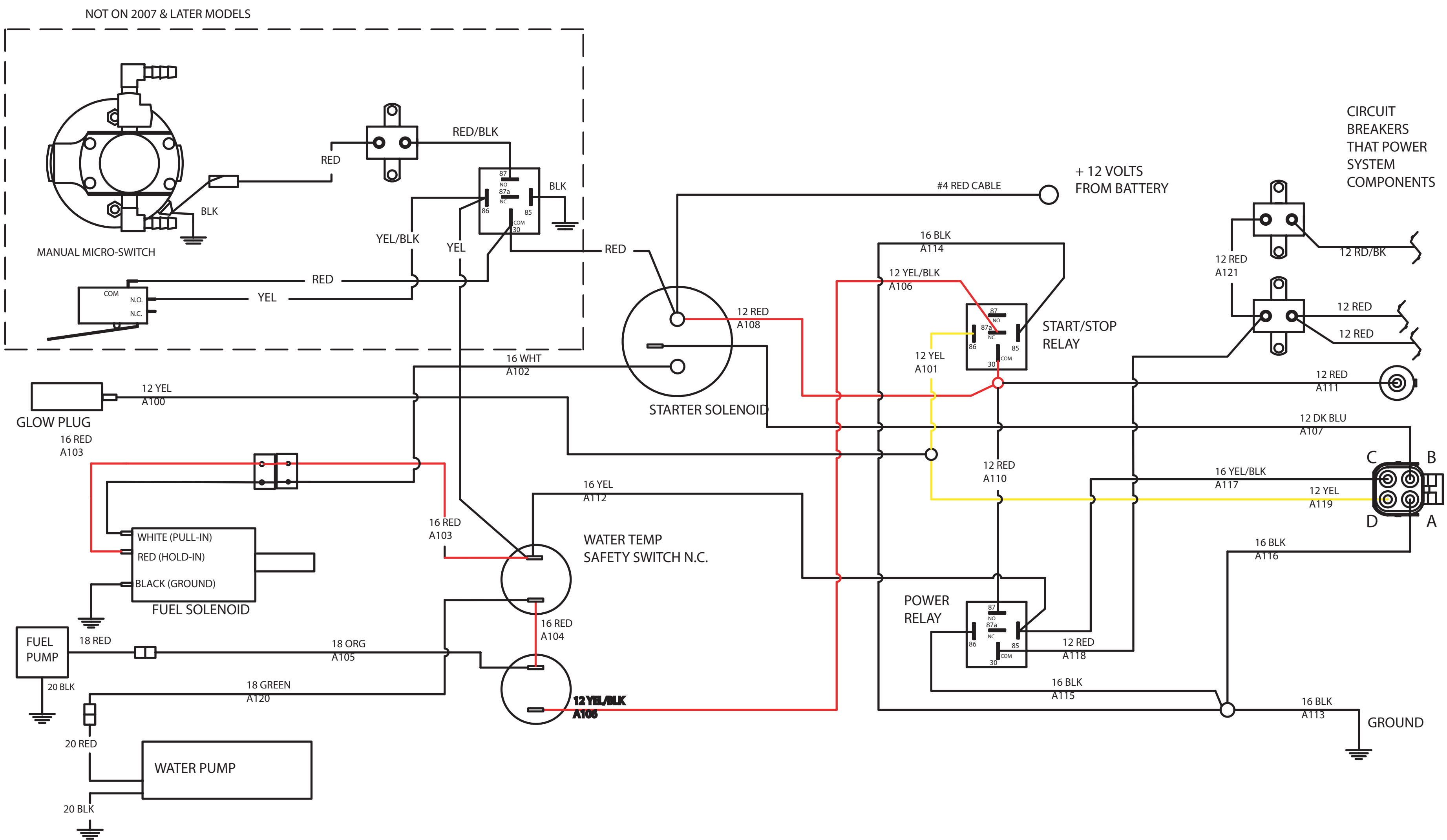
RUN CIRCUIT



NOT ON 2007 & LATER MODELS
RED/BLK
RED
BLK
BLK
MANUAL MICRO-SWITCH
YEL/BLK
YEL
RED
RED
YEL
COM
N.O.
N.C.
#4 RED CABLE
+ 12 VOLTS
FROM BATTERY
CIRCUIT
BREAKERS THAT
POWER SYSTEM
COMPONENTS
12 RED
A121
12 RD/BK
12 RED
12 RED
16 BLK
A114
12 YEL/BLK
A106
START/STOP
RELAY
12 RED
A108
12 YEL
A101
16 WHT
A102
12 YEL
A100
GLOW PLUG
STARTER SOLENOID
12 RED
A111
12 DK BLU
A107
16 RED
A103
12 RED
A110
C
B
D
A
16 YEL/BLK
A117
12 YEL
A119
16 YEL
A112
16 RED
A103
WATER TEMP
SAFETY SWITCH N.C.
WHITE (PULL-IN)
RED (HOLD-IN)
BLACK (GROUND)
FUEL SOLENOID
16 BLK
A116
POWER
RELAY
16 RED
A104
FUEL PUMP
18 RED
18 ORG
A105
12 RED
A118
20 BLK
18 GREEN
A120
16 BLK
A115
12 YEL/BLK
A106
16 BLK
A113
GROUND
20 RED
WATER PUMP
20 BLK

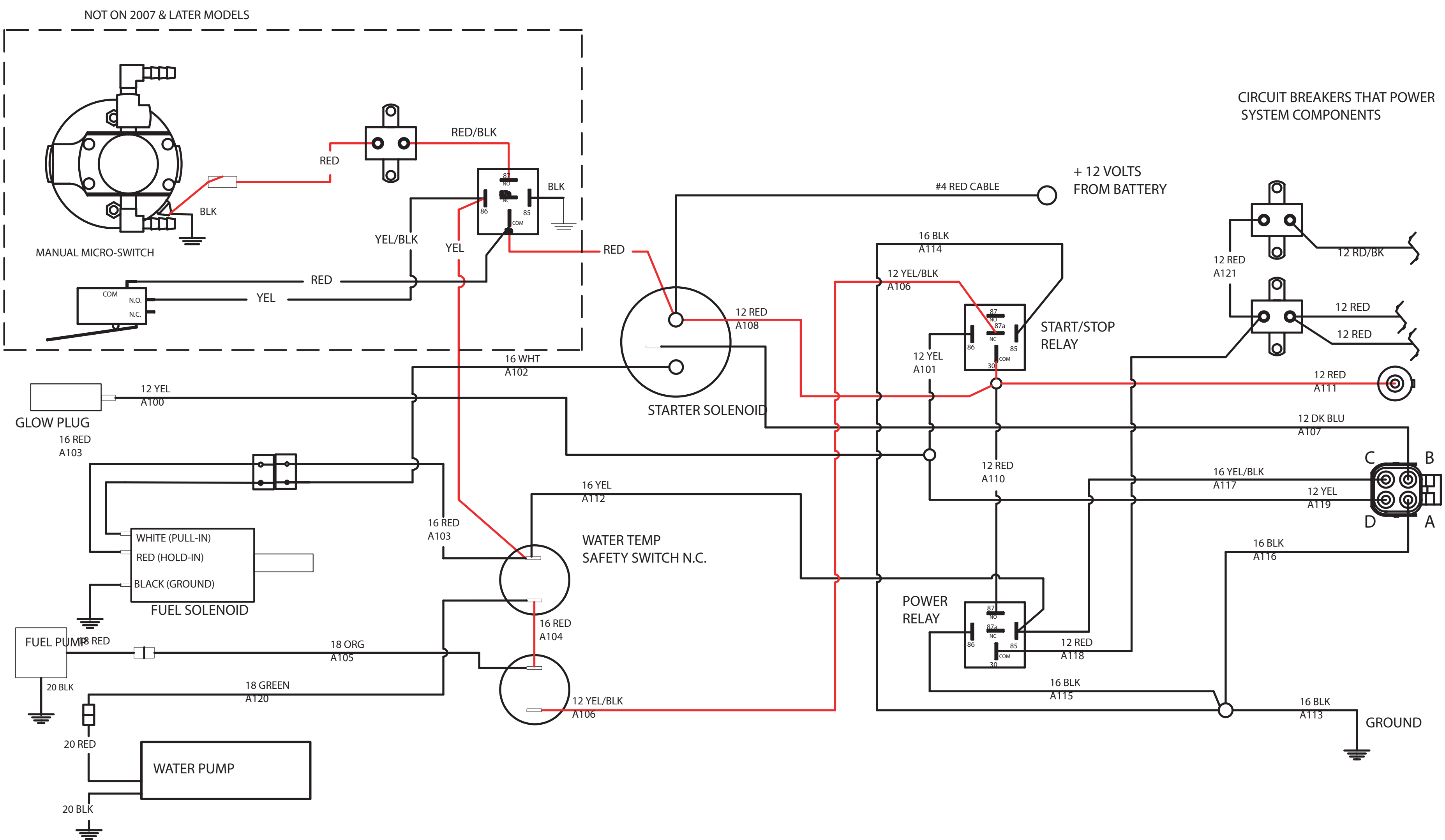
STOP CIRCUIT

When the stop switch is pressed down in the stop position the yellow wire triggers the start/stop relay and interrupts the 12volts to the oil pressure switch and drops the fuel solenoid out to shut the fuel off and stop the engine.



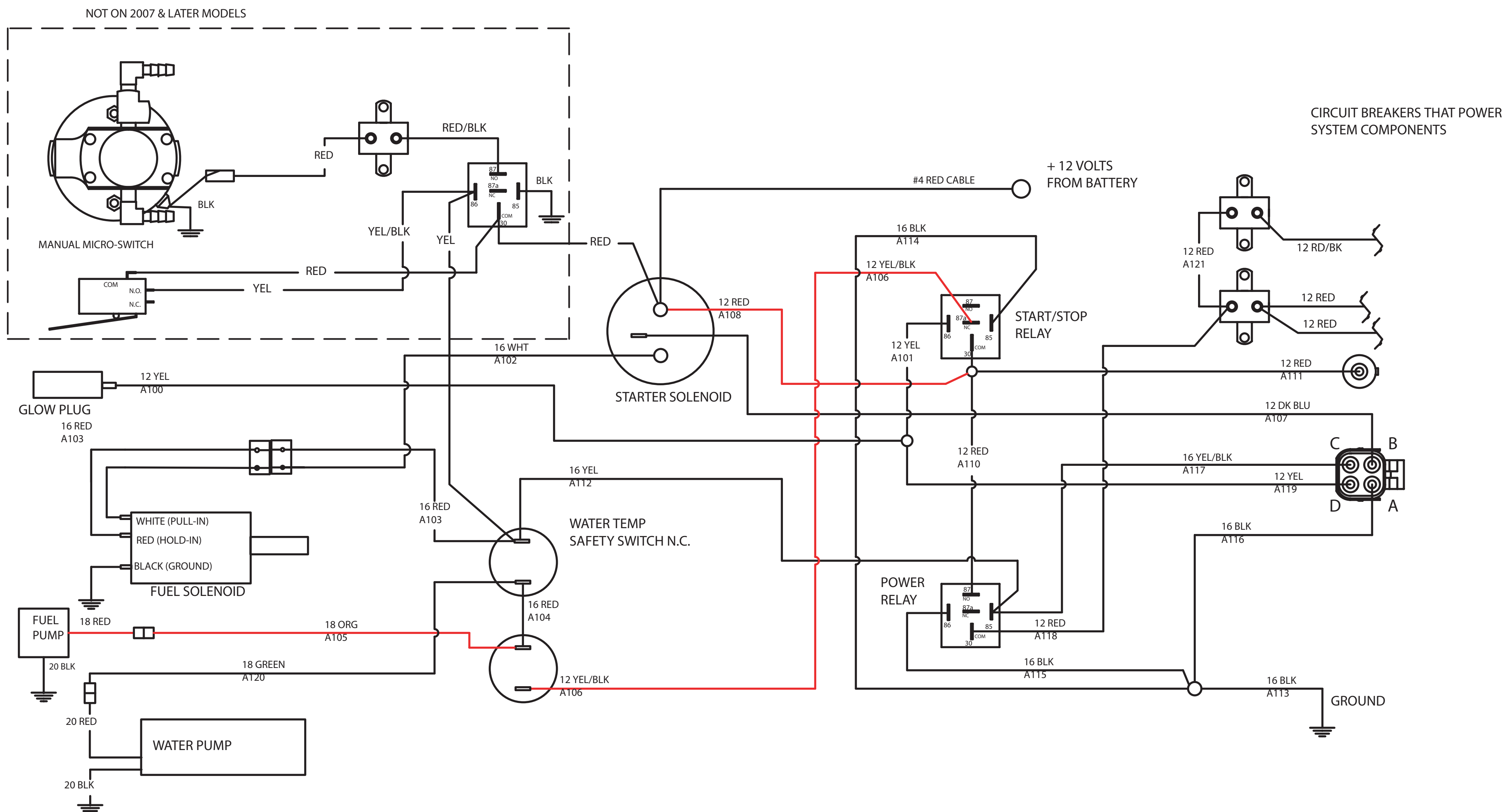
ELECTRIC OIL PUMP CIRCUIT

When the oil pressure switch closes it sends 12 volts to the oil pump relay
To trigger it and send 12 volts to the external oil pump.



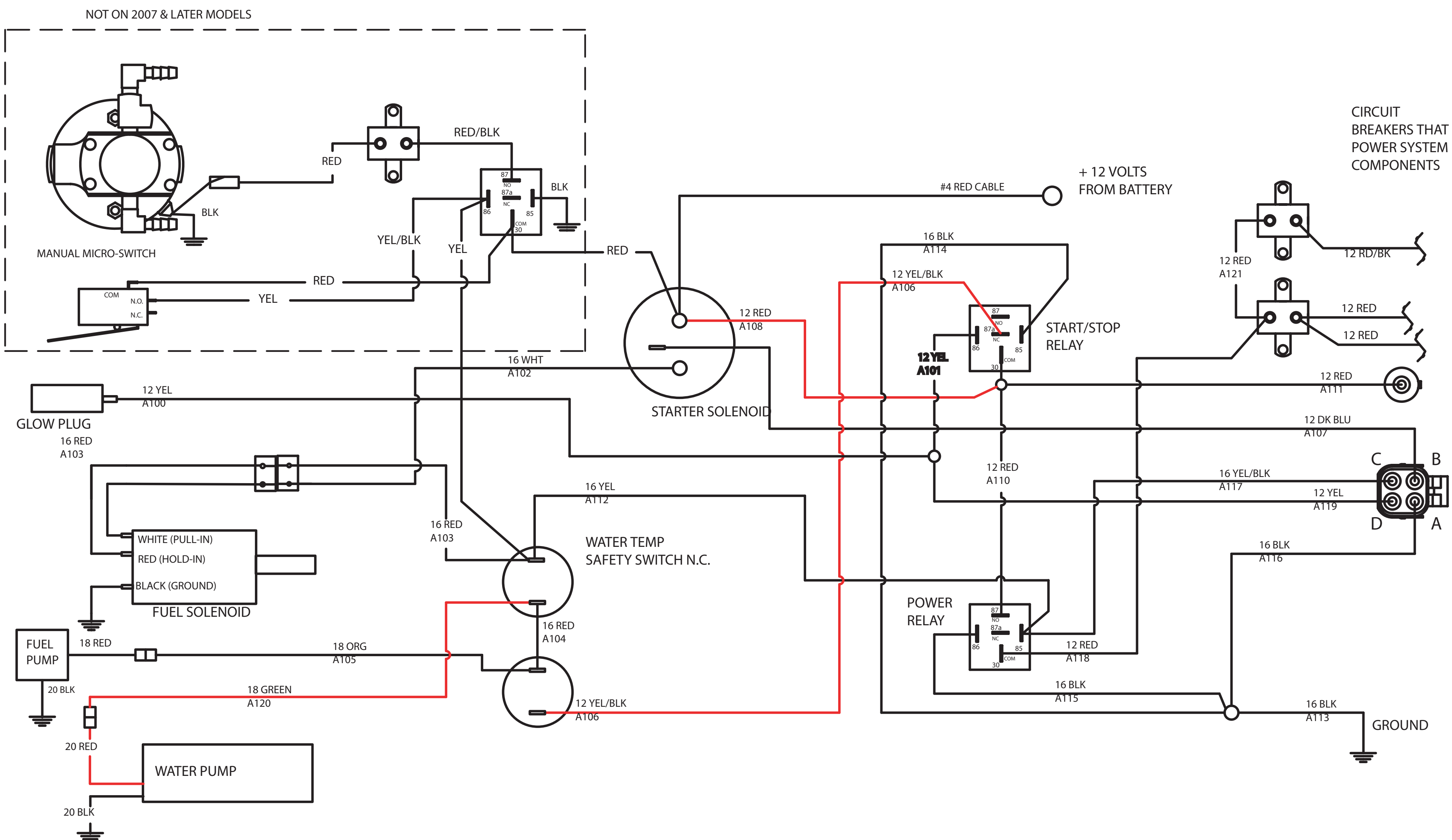
FUEL PUMP CIRCUIT

When the oil pressure switch closes it sends 12 volts to the electric fuel pump



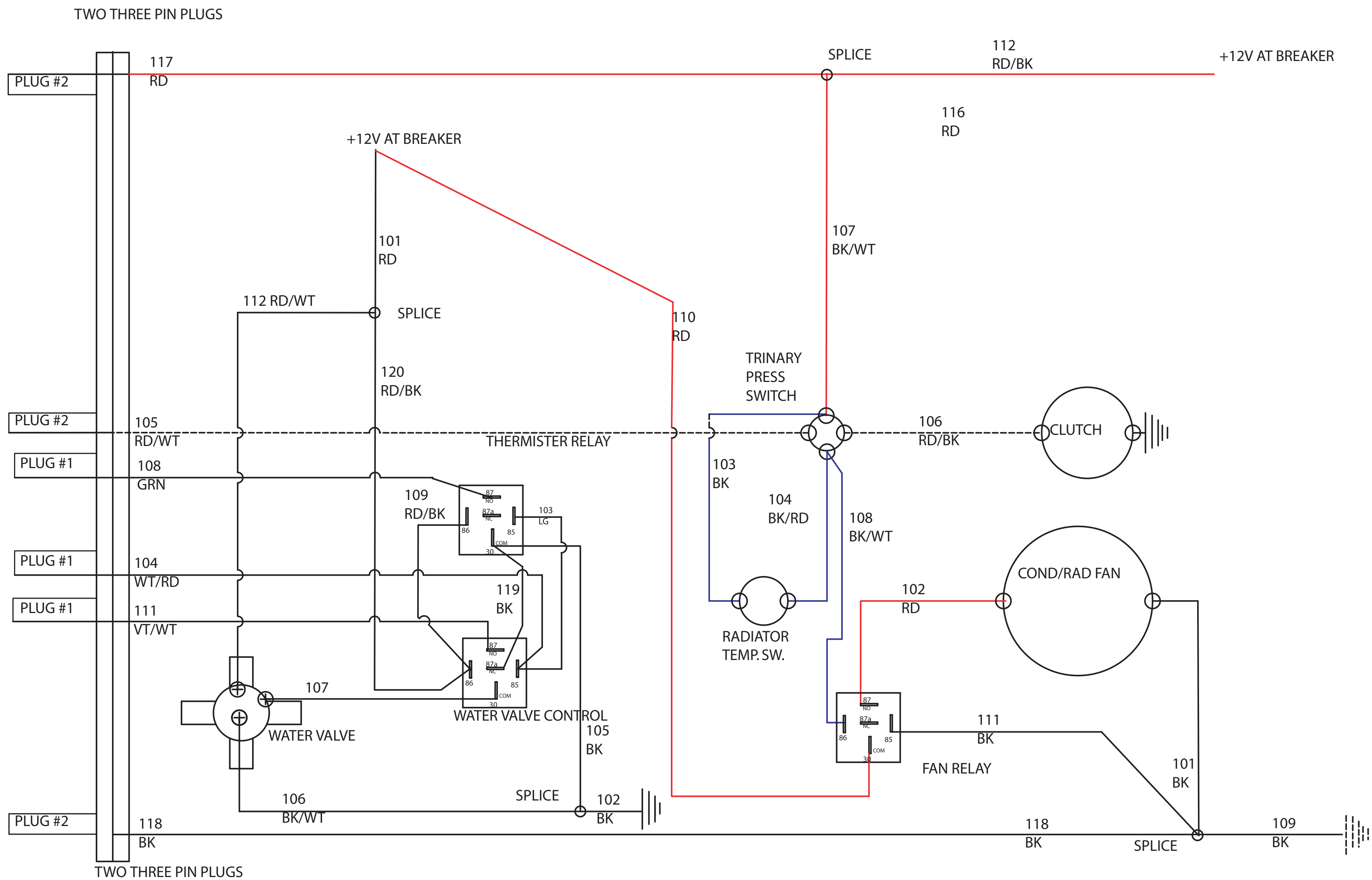
WATER PUMP CIRCUIT

When the oil pressure switch closes it sends 12 volts to the electric water pump



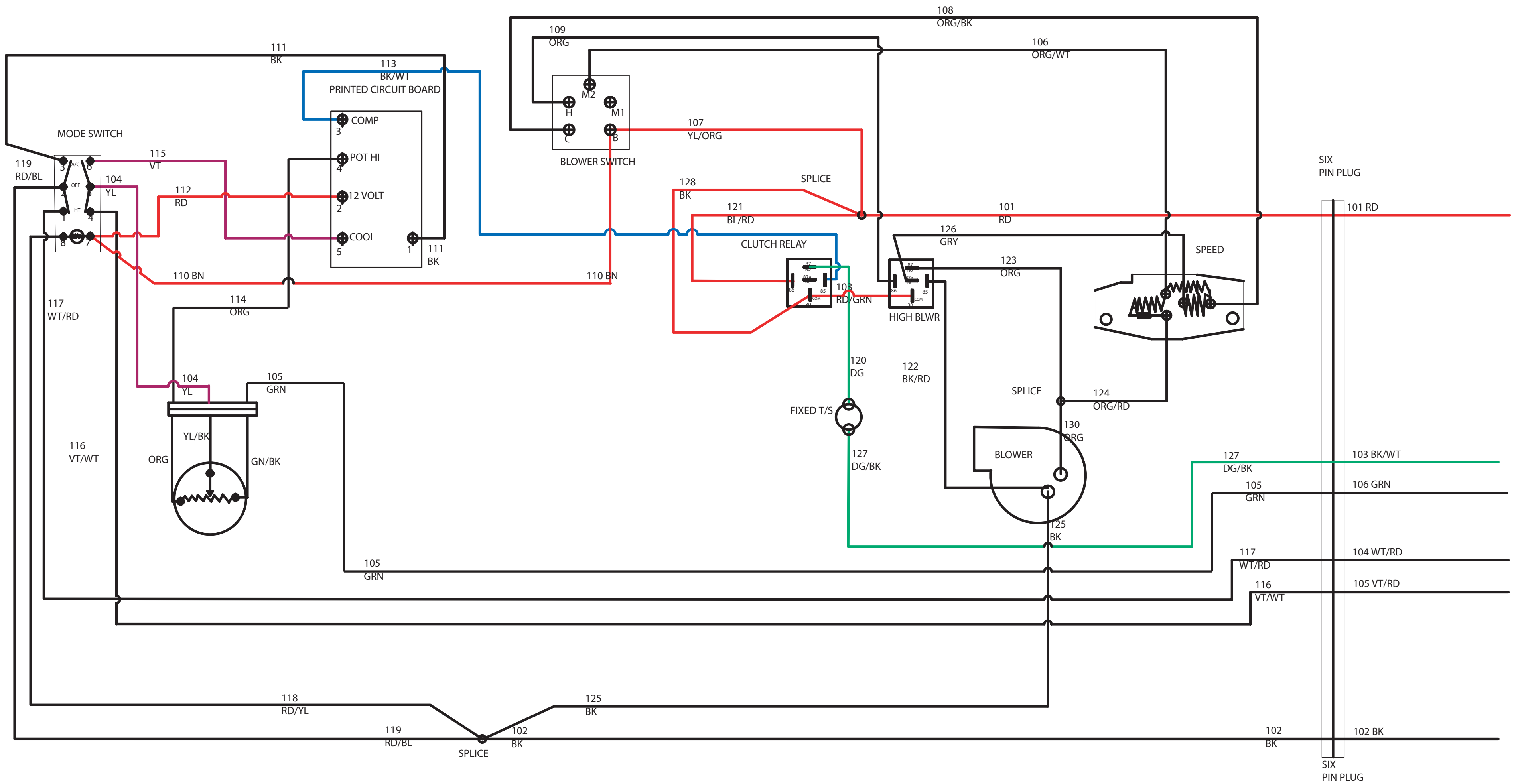
RADIATOR FAN CIRCUIT

The radiator fan is controlled by either the radiator fan switch in the bottom of the radiator or the trinary switch when the AC is on.



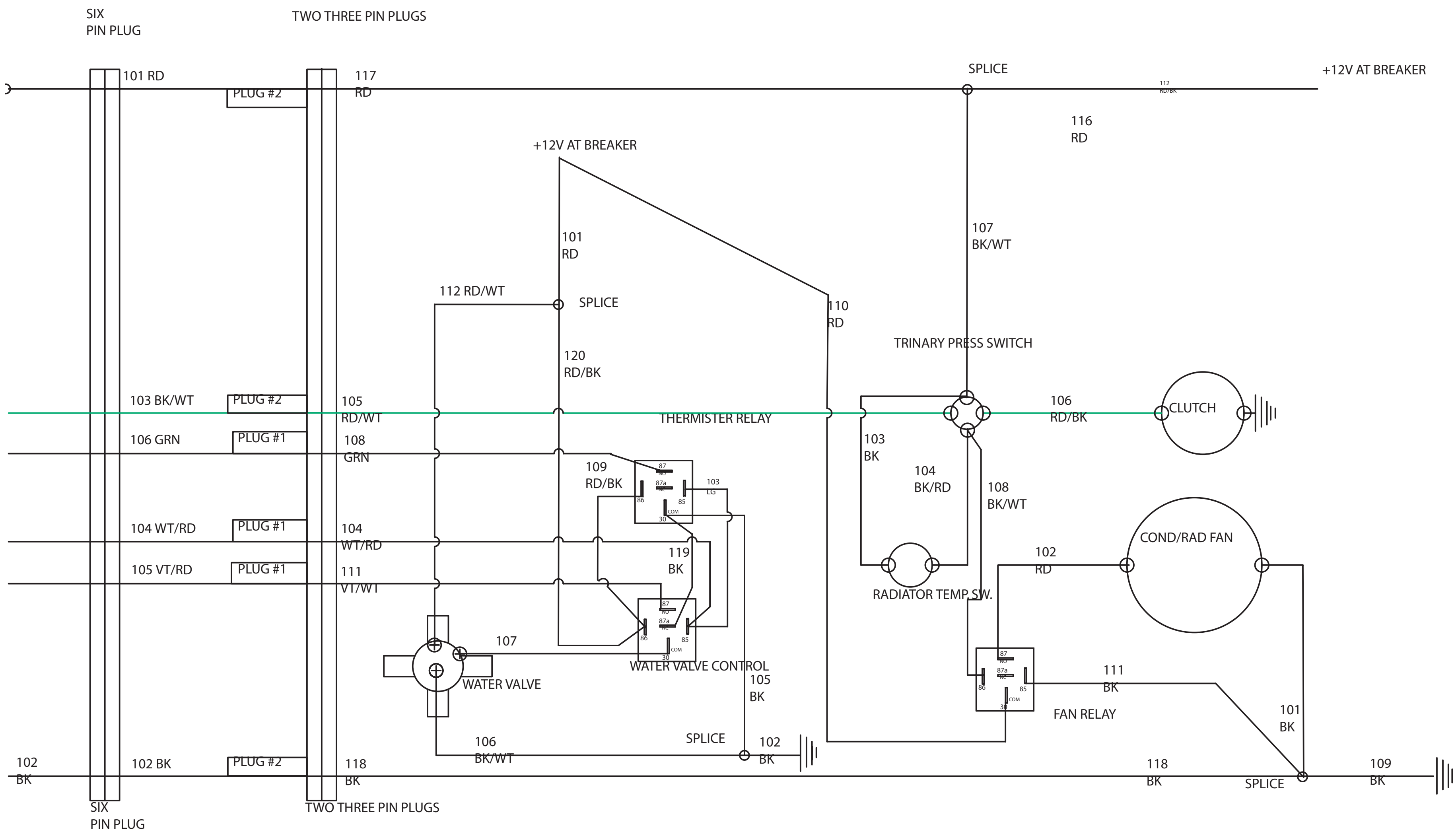
AC INTERIOR CIRCUIT

The mode switch sends a variable voltage signal to the circuit board from the temperature switch on the **violet** wire, the circuit board sends a ground signal to the clutch relay on the **black/white** wire, which triggers the relay and sends 12 volts to the fixed thermostat on the **green** wire and out to the exterior harness to the trinary switch.



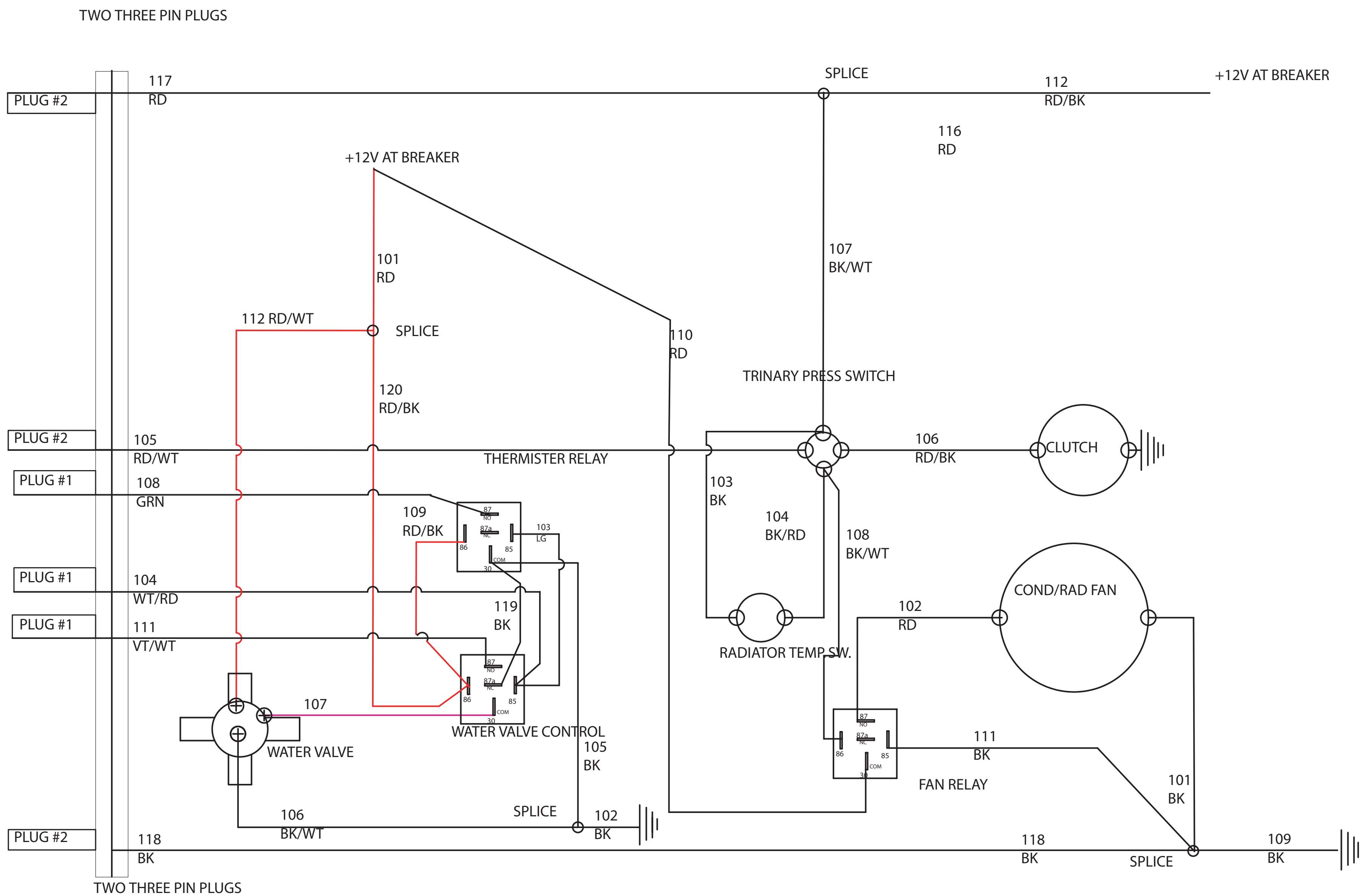
AC EXTERIOR CIRCUIT

The green wire from the fixed thermostat on the interior harness changes to a black/white wire on the extension and then to a red/white wire on the engine harness at the 3 pin connector. From there It goes to the trinary switch and to the compressor clutch as a red/black wire.



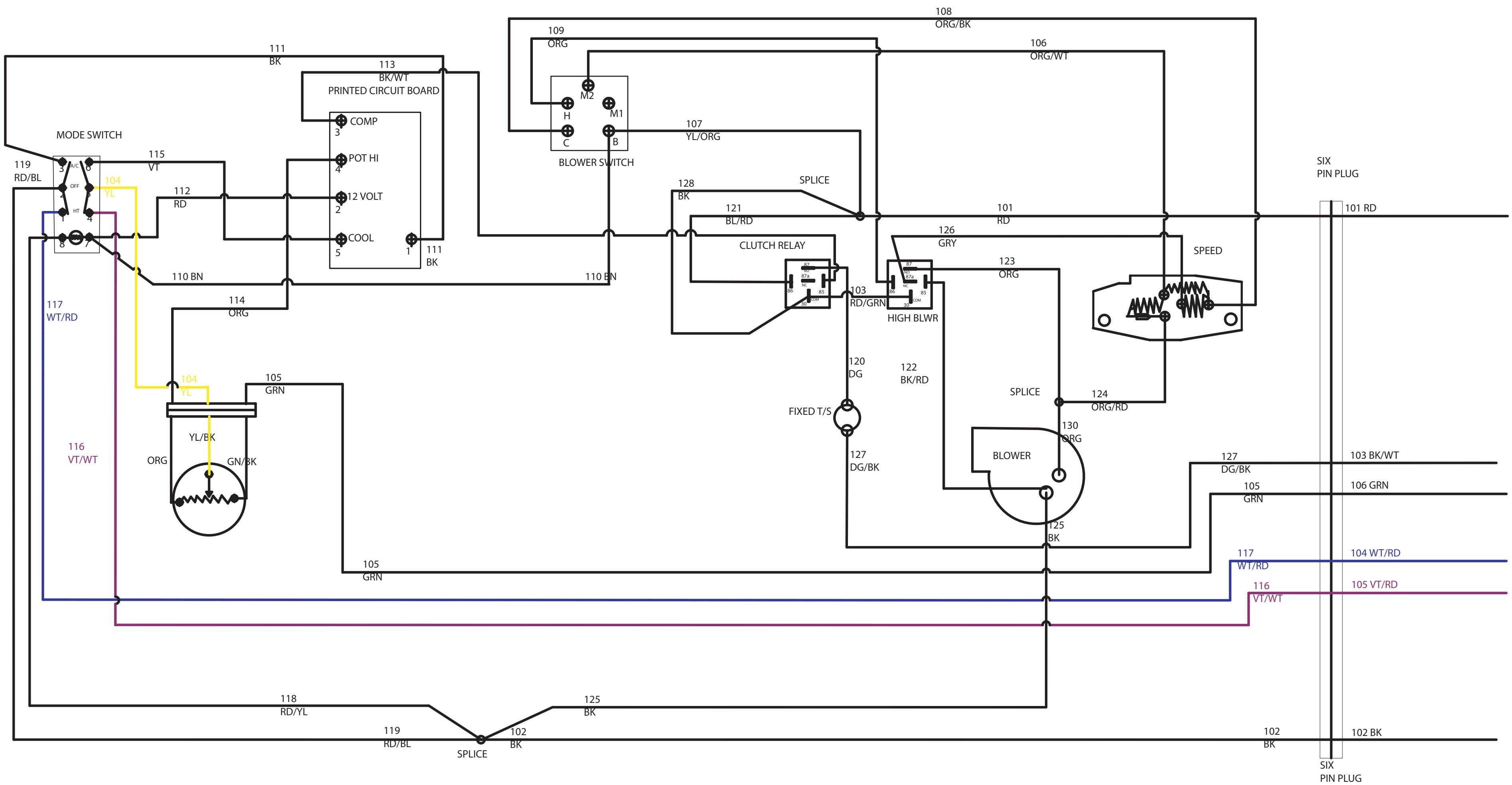
WATER VALVE CIRCUIT IN AC MODE

The red/white wire is 12 volts and the violet wire is a ground.



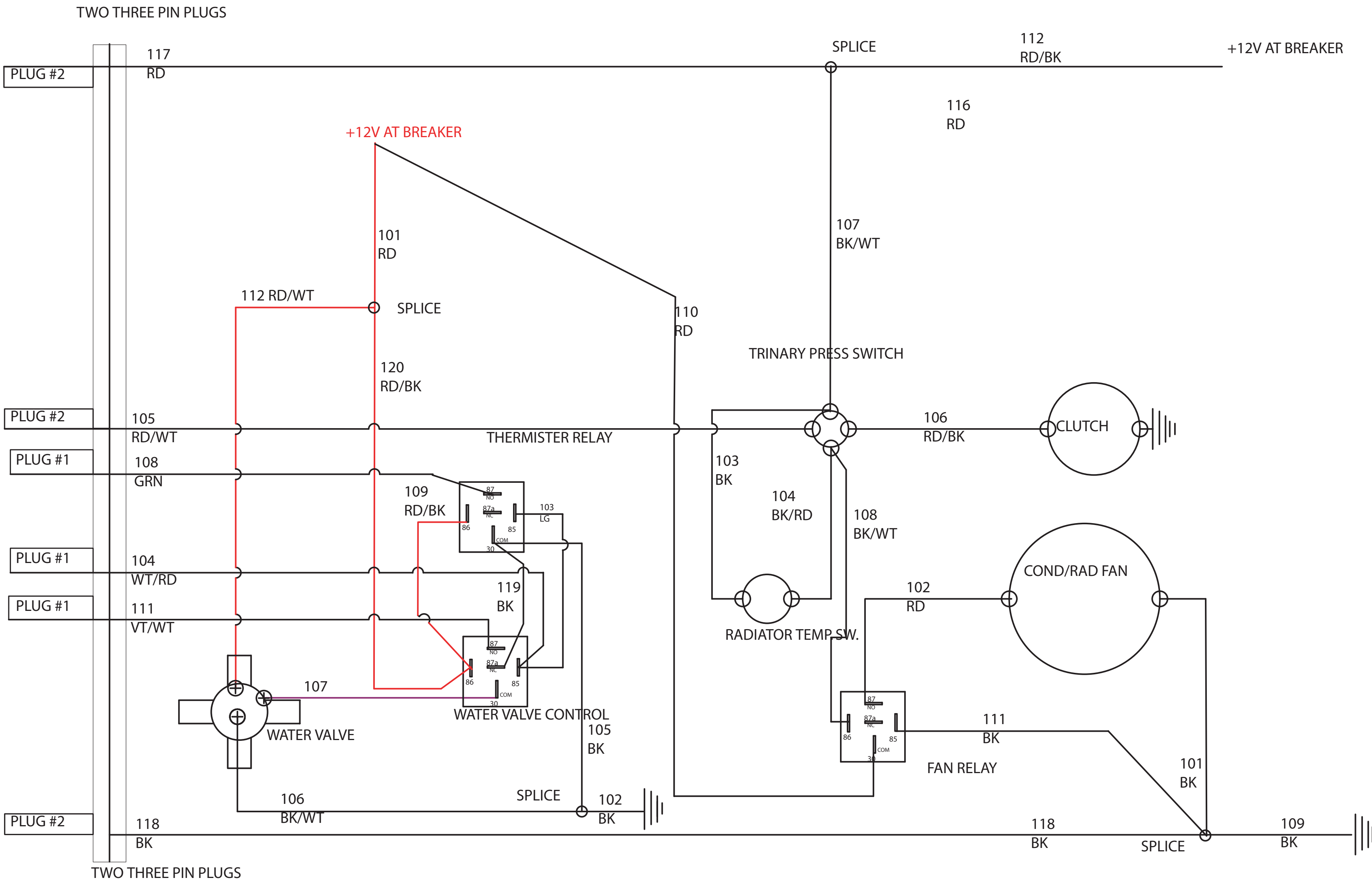
HEAT INTERIOR CIRCUIT

When the mode switch is in heat position the **white/red** wire sends a ground to the water valve control relay and the **violet/white** wire sends a variable voltage to the water valve when the temperature switch moved. This controls the amount of hot water that goes to the heater coil.



WATER VALVE HEAT CIRCUIT

The **white/red** wire grounds the water valve control relay when the mode switch is in heat mode. The **red/white** wire is 12 volts from the circuit breaker and the **violet** wire is a variable voltage from the temperature control switch.



BLOWER CIRCUIT

The **grey** wire is low blower speed, the **orange/black** is medium speed, the **orange/white** wire is medium 2 speed, and the **orange** wire is high speed blower.