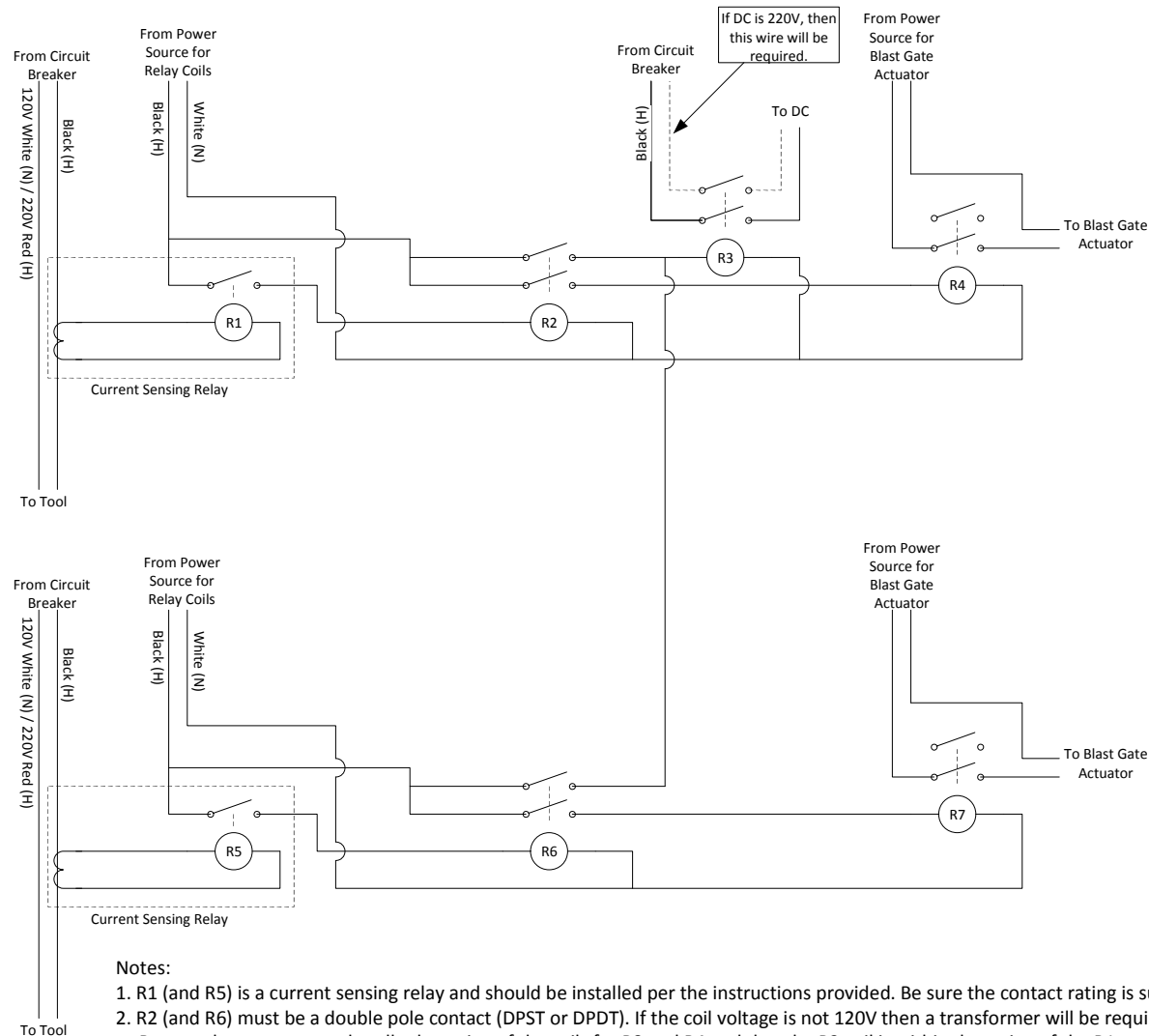


This design senses the tool starting and energizes a double pole relay.  
One set of contacts starts the DC and the other contact opens the blast gate.



#### DISCLAIMER:

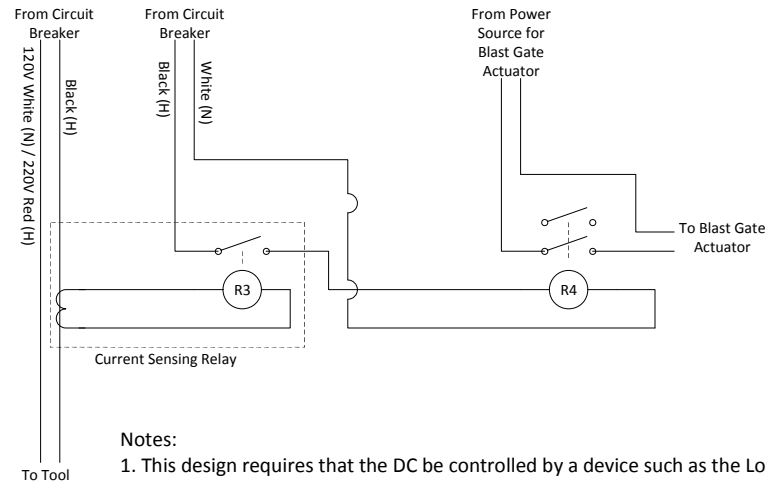
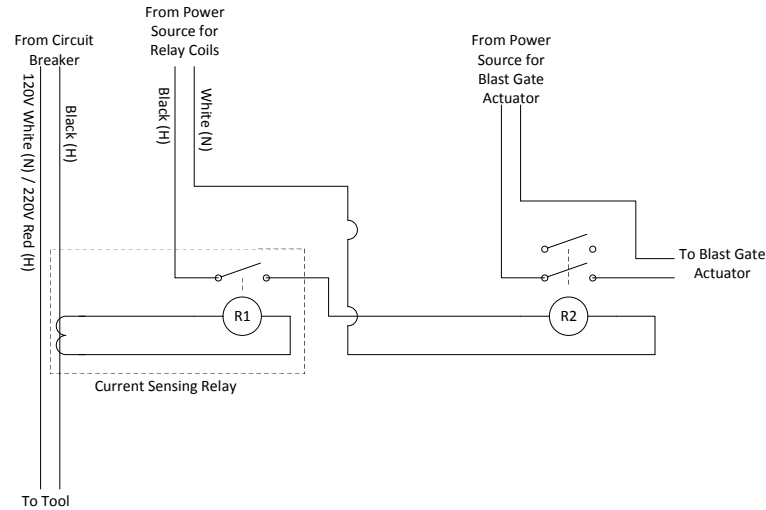
Using this design or any part of it is at your own risk.

Please consult professional help if you are not experienced in working with the above voltages, amperage and devices presented above. Improperly rated wire, devices or installation can result in electric shock or fire.

#### Notes:

1. R1 (and R5) is a current sensing relay and should be installed per the instructions provided. Be sure the contact rating is sufficient for the R2 coil rating.
2. R2 (and R6) must be a double pole contact (DPST or DPDT). If the coil voltage is not 120V then a transformer will be required for the proper voltage (usually 24VAC). Be sure the contacts can handle the rating of the coils for R3 and R4 and that the R2 coil is within the rating of the R1 contacts. One set of contacts will operate the relay coil for the DC and the other will operate the relay coil for the blast gate actuator. If you want to incorporate a time delayed shut off then this relay would be the one to replace with a time delayed relay.
3. R3 is the relay (or contactor) which will start the DC. Be sure the contacts can handle the amperage load of the DC. I suggest that the contacts be rated at the same rating as the circuit breaker. If the DC is 120V the only the black (Hot) wire will be wired to the relay contacts. The white (Neutral) will not be wired to the relay. If the DC is wired for 220V then both the black (Hot) and Red (Hot) wire will be wired to relay contacts.
4. R4 (and R7) is the relay to operate the blast gate actuator. The contacts need to be rated to handle the load created by the actuator. This relay can be a single pole (SPST or SPDT) but to keep things simple I suggest that R2 and R4 be the same model number. The actuator could be a solenoid or electric air valve (operates a pneumatic cylinder).
5. Repeat R5, R6, and R7 for each tool's circuit that is to auto start the DC and open the blast gate.
6. Be sure circuit breakers or fuses are used to protect the wiring and prevent overloading of circuits.

This design senses the tool starting and opens the blast gate.  
The DC is started with a micro-switch located on the blast gate which is wired back to the device that starts the DC.



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#### Notes:

1. This design requires that the DC be controlled by a device such as the Long Ranger which uses micro-switches on the blast gates to start the DC. The circuits above will actuate the blast gate when the tool is started. Once the blast gate opens the DC will start with the closing of the micro-switch.
2. R1 (and R3) is a current sensing relay and should be installed per the instructions provided. Be sure the contact rating is sufficient for the R2 coil rating.
3. R2 (and R4) is the relay to operate the blast gate actuator. The contacts need to be rated to handle the load created by the actuator. This relay can be a single pole (SPST or SPDT) but to keep things simple I suggest that R2 and R4 be the same model number. The actuator could be a solenoid or electric air valve (operates a pneumatic cylinder).
4. Repeat R3 and R4 for each tool's circuit that is to auto start the DC and open the blast gate.
5. Be sure circuit breakers or fuses are used to protect the wiring and prevent overloading of circuits.