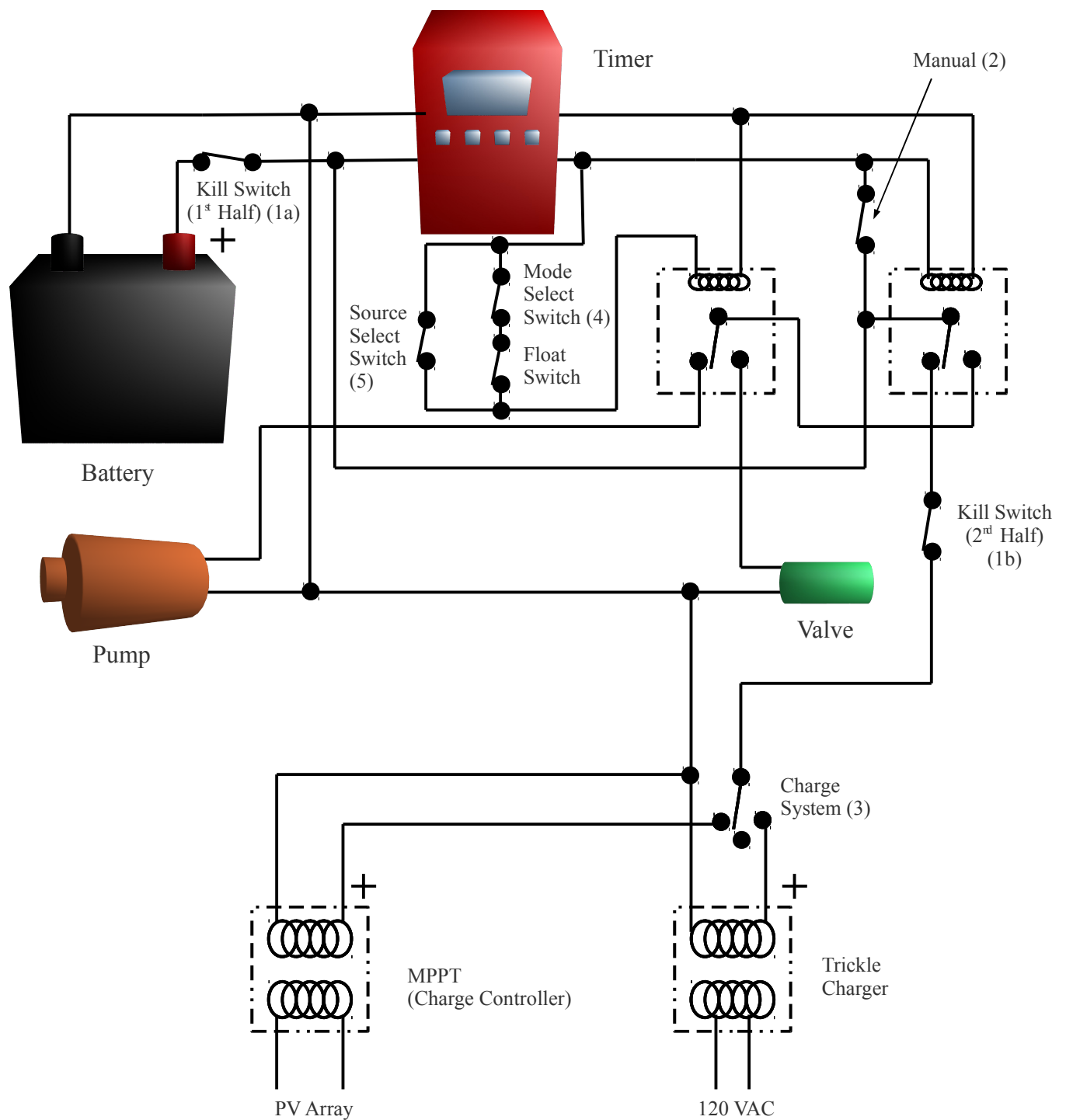


#### General Operation Principles:

The basic operation of this system relies on a float switch, a pump, rain barrels, a control valve, a city water spigot. When the unit is running, if the barrels have water (as indicated by the float switch) the pump is turned on and the valve is closed. If the barrels do not have any water, the pump will not be turned on and the valve will be opened allowing for irrigation with city water.

The electrical system uses a 12 volt battery which runs the timer, pump, valve and some internal circuitry. The system is charged via an AC adapter or a solar array.



Updates yet to be completed (1/11/10):

1. Timer installation
2. Change feed for source select to alternate pin of mode select switch (electrical logical improvement).