

# Timer with remote control

*Example shows water heater recirculation pump*

This plan can be used for any 120Volt Load normally connected to a timer



Splice 2nd wire onto recirculation pump. The wire splice must be black-to-black, white-to-white, and ground-to-ground. If recirculation pump has 3-prong plug, then use another 3-prong plug on 2nd wire. If recirculation pump has polarized 2-prong plug, then use another polarized 2-prong plug.

If the spliced white and black wires are reversed, then the open short will trip breaker.

FYI: Household outlets have wide blade and narrow blade. The wide blade is for the Neutral white wire. The narrow blade is for Hot black wire. <http://waterheatertimer.org/images/Outlet-polarity-200.jpg>  
<http://waterheatertimer.org/Troubleshoot-household-electricity.html>

Set recirculation pump so it is ON. The recirculation timer module will still rotate, but pump will automatically turn ON-OFF when temperature inside pipe reaches set point (set point is typically 90 degrees F, but can vary >> all thermostats are approximate <> and industry continually changes)

Then set typical plug-in timer (Woods 59366) for your hot-water schedule. This particular timer has 1/2 hour on-off periods. The Grasslin timer module that is used on typical recirculation pump has 1/4 hour on-offs. Other plug-in timers such as Sylvania 31192 have 1/4 hour on-off periods. <http://waterheatertimer.org/Woods-timers-and-manuals.html#13568> These analog timers must be reset after power outage.

Next plug in remote control. Woods 32555 is reliable and has replaceable 12 volt battery. This device does not need to be reset after power outage.

Last, plug recirculation pump into timer and remote control.

It will not matter if both timer and remote are ON at same time. The pump will draw the amperage it is rated for and no more.

<http://waterheatertimer.org/Timer-with-remote-control.html>