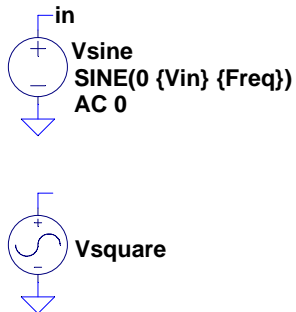


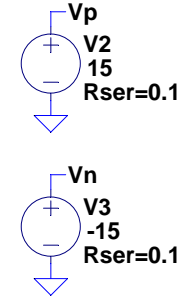
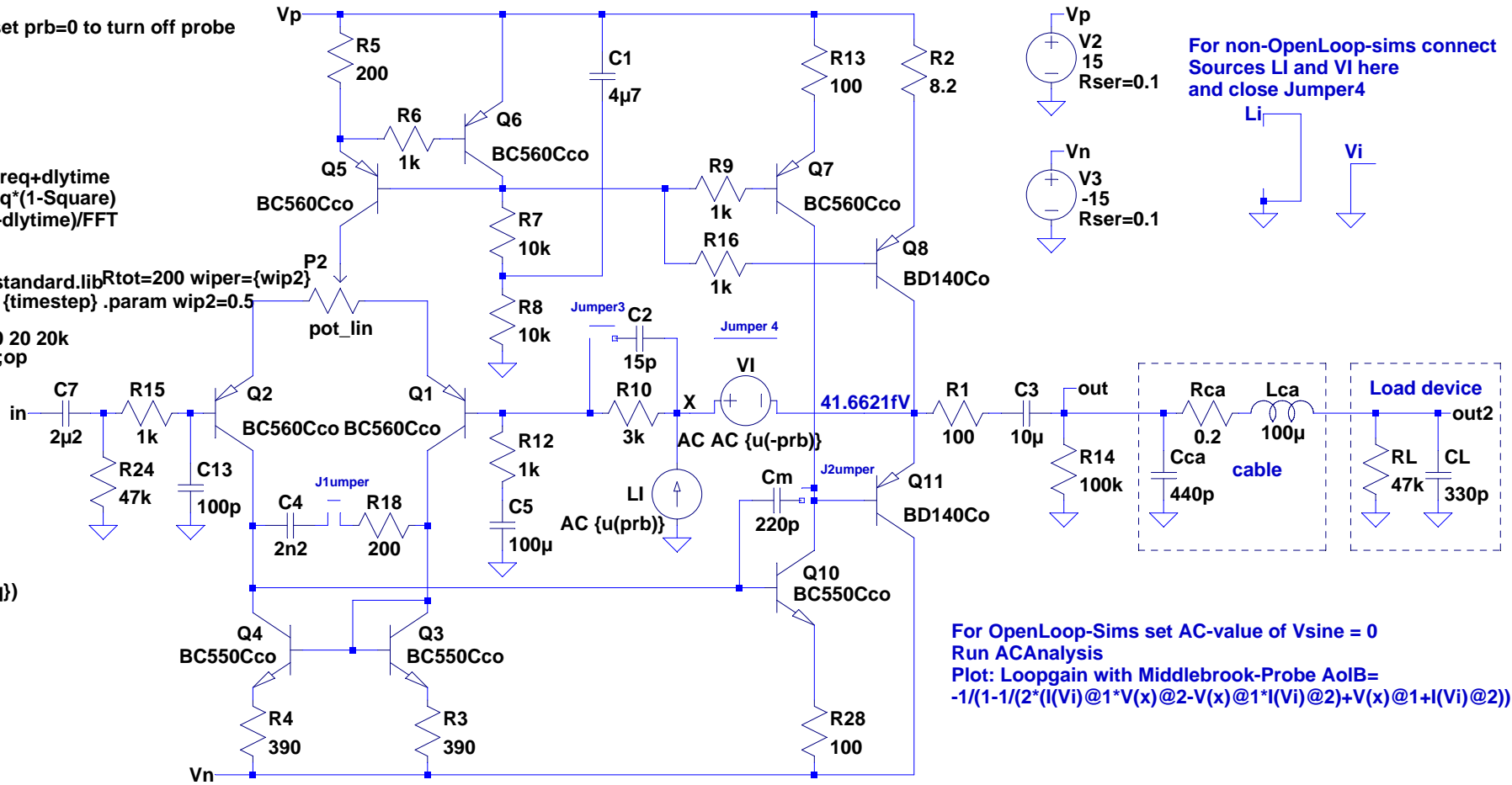
```

.step param prb list -1 1 ; set prb=0 to turn off probe
.options plotwinsize=0
.options method=gear
.options numdgt=7
.param numcyc=10
.param dlycyc=5
.param FFT=2**16
.param simtime=numcyc/Freq+dlytime
.param dlytime=dlycyc/Freq*(1-Square)
.param timestep=(simtime-dlytime)/FFT
.four {Freq} V(out)
.four {Freq} 4 V(out)
.INCLUDE potentiometer_standard.lib Rtot=200 wiper={wip2}
;tran 0 {simtime} {dlytime} {timestep} .param wip2=0.5
.ac oct 330 1m 1G
;noise V(out) Vsine oct 100 20 20k
;tf V(out) Vsine ;op
.param Freq=1k
.param Vin=1.4142
.param Square=1
.four {Freq} V(out2)
.four {Freq} 4 V(out2)

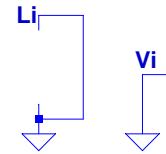
```



PULSE({-Vin} {Vin} {dlytime+simtime*(1-Square)} {timestep} {timestep} {.5/Freq-timestep} {1/Freq})



For non-OpenLoop-sims connect Sources LI and VI here and close Jumper4



For OpenLoop-Sims set AC-value of Vsine = 0
Run ACAnalysis
Plot: Loopgain with Middlebrook-Probe AoIB=
 $-1/(1-1/(2*(I(Vi)@1*V(x)@2-V(x)@1*I(Vi)@2)+V(x)@1+I(Vi)@2))$