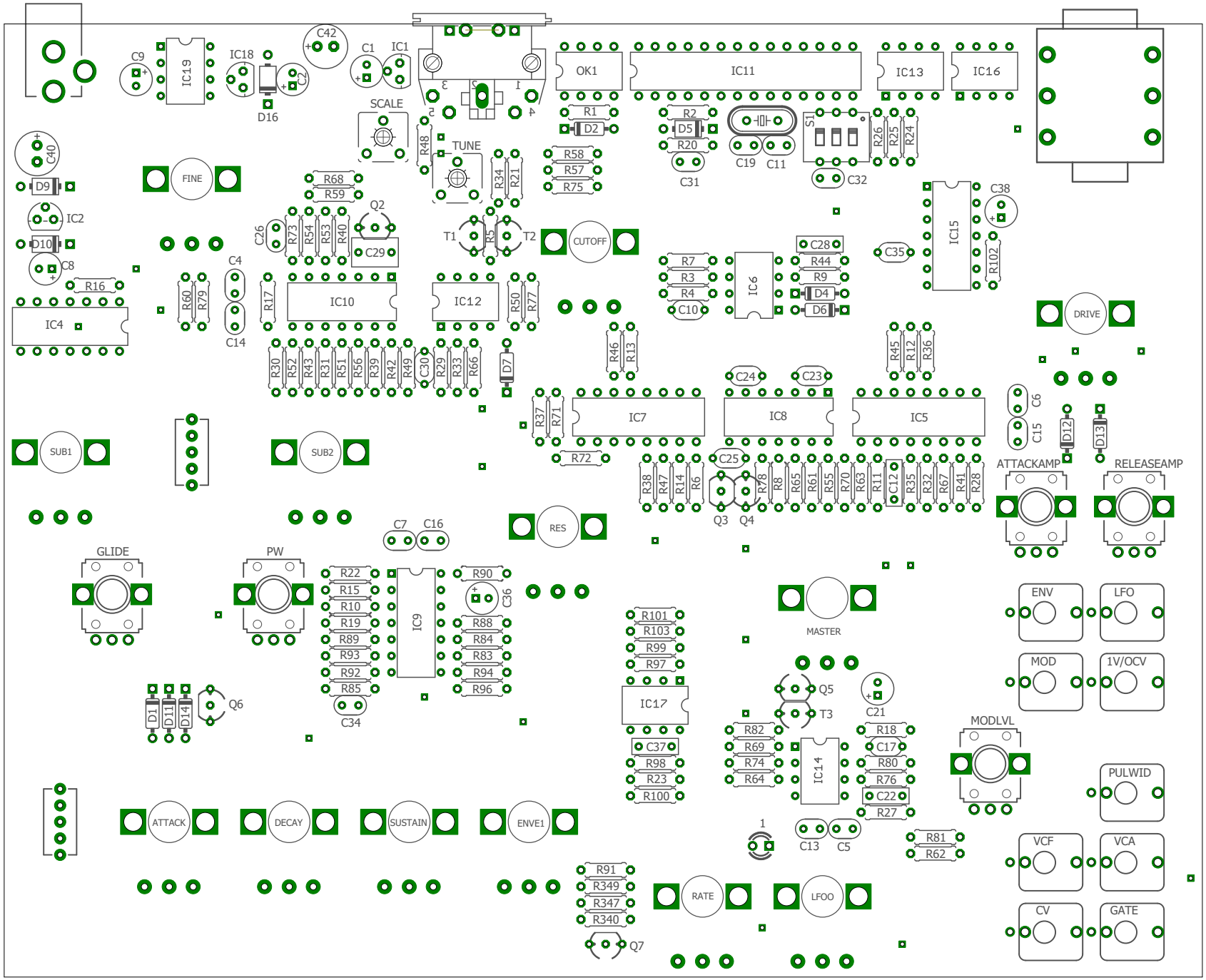
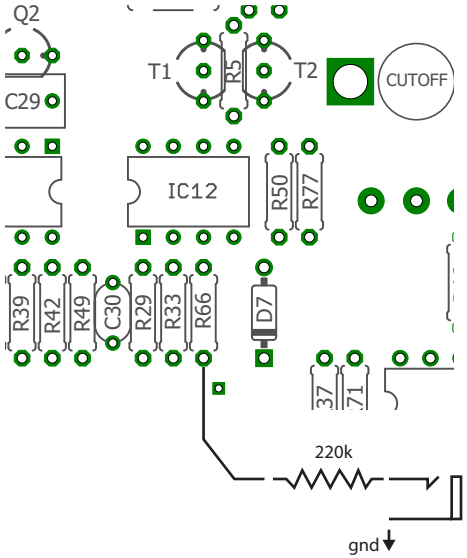

C9
IC19
IC18
D16
C42
C2
C1
IC1
SCALE
TUNE
OK1
IC11
IC13
IC16
R1
D2
R2
D5
R20
C31
C19
C11
S1
R26
R25
R24
C32
C40
D9
IC2
D10
C8
R16
IC4
FINE
R68
R59
Q2
C26
R73
R54
R53
R40
C29
T1
R5
T2
CUTOFF
R58
R57
R75
R48
R34
R21
C4
C14
R60
R79
R17
IC10
IC12
R50
R77
R30
R52
R43
R31
R51
R56
R39
R42
R49
C30
R29
R33
R66
D7
R7
R3
R4
C10
IC6
C28
R44
R9
D4
D6
C35
IC15
C38
R102
DRIVE
R46
R13
R37
R71
IC7
R72
C24
C23
IC8
R45
R12
R36
IC5
C6
C15
D12
D13
ATTACKAMP
RELEASEAMP
SUB1
SUB2
R38
R47
R14
R6
C25
Q3
Q4
R78
R8
R65
R61
R55
R70
R63
R11
C12
R35
R32
R67
R41
R28
RES
C7
C16
GLIDE
PW
R22
R15
R10
R19
R89
R93
R92
R85
C34
IC9
R90
C36
R88
R84
R83
R94
R96
R101
R103
R99
R97
IC17
C37
R98
R23
R100
MASTER
ENV
LFO
MOD
1V/OCV
Q5
T3
C21
MODLVL
R82
R69
R74
R64
IC14
R18
C17
R80
R76
C22
R27
D1
D11
D14
Q6
ATTACK
DECAY
SUSTAIN
ENVE1
1
C13
C5
R81
R62
PULWID
VCF
VCA
CV
GATE
R91
R349
R347
R340
Q7
RATE
LFOO

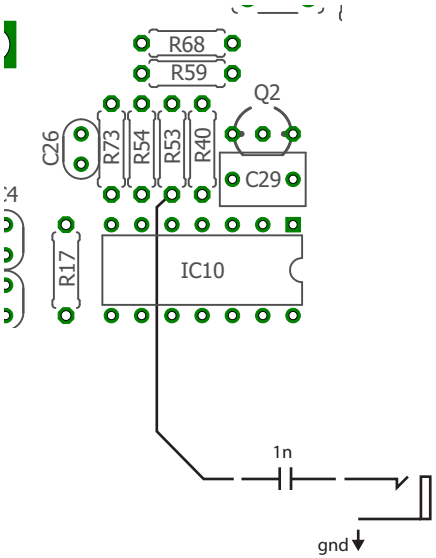
VCO MODS

FM INPUT



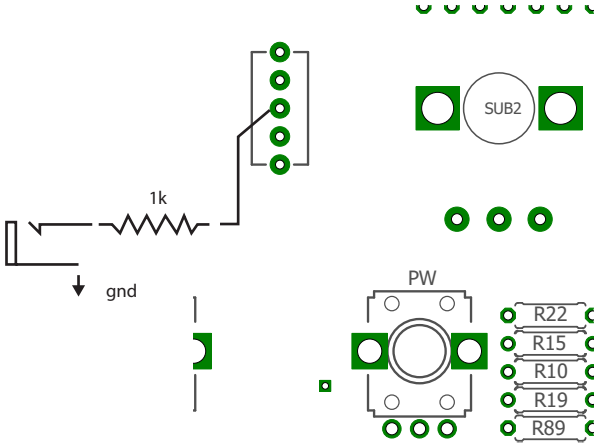
Solder a 220k resistor to the edge of the R66 as shown,
in series with a jack.

SYNC INPUT



Solder a 1n capacitor to the edge of
R 53 or R54 (size type and
rating is not important)
as shown, in series with a jack

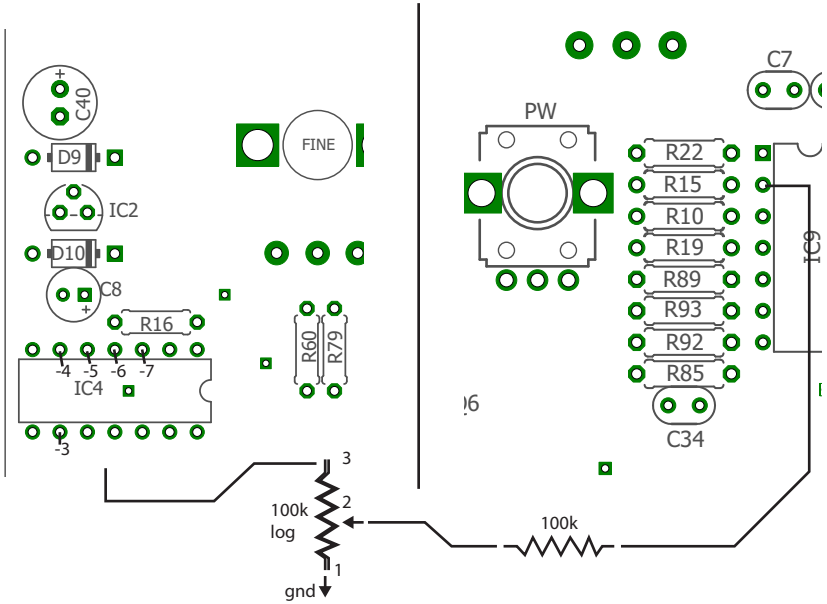
VCO OUTPUT



Solder a 1k resistor to the middle pin
of the switch as shown,
in series with a jack

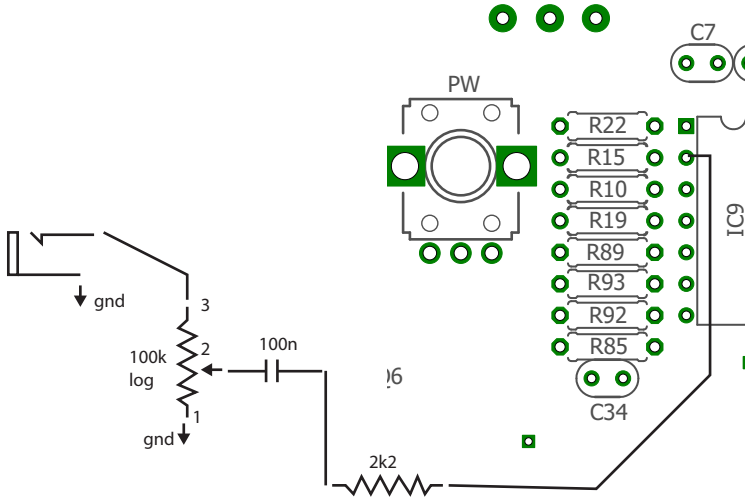
SIGNAL MODS

MORE SUB OUTS



IC4 "4024" is a frequency divider capable to produce up to 7 octaves down at the same time.
The pins marked, show what octave you get from each pin.
Solder a 100K log pot with a 100k resistor as shown.
You can do that for all octaves, or you could skip the pot and add a switch to turn the octave on/off. The 100k resistor, will determine the max level. For lower volume raise its value.

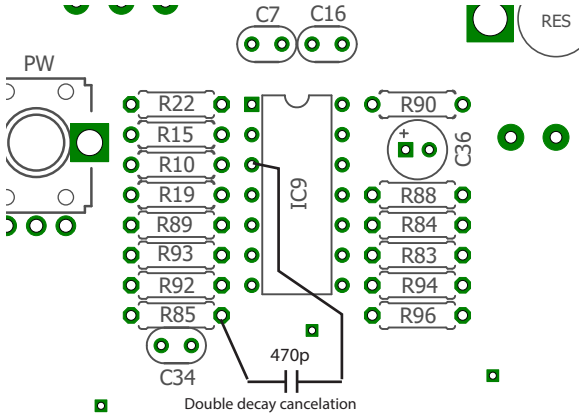
EXTERNAL INPUT



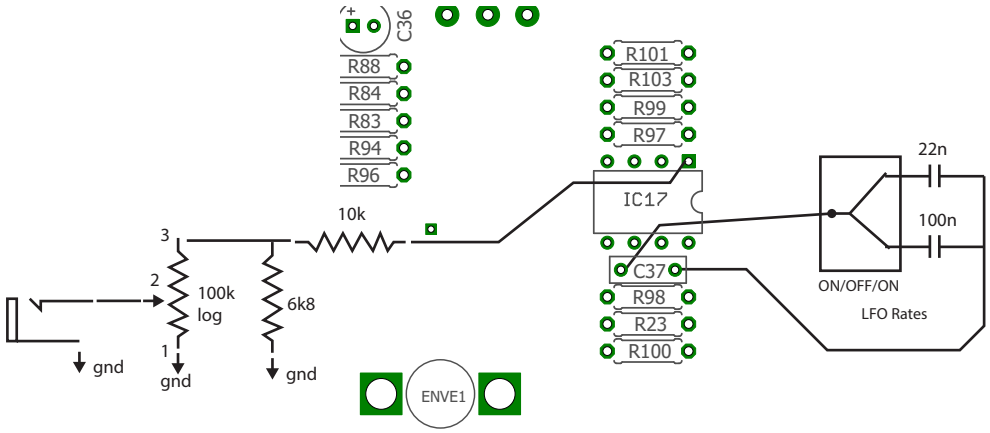
Solder a 100n capacitor in series with a 2k2 resistor to pin2 of IC9. Add a logarithmic 100K pot as shown, with a jack. If no control of the input is required, you can just skip the pot and connect the capacitor directly with the jack

MODULATION MODS

ENVELOPE RATE
AND DOUBLE DECAY CANCELATION



LFO RATE
LFO SQUARE OUT



Enevelope rates:
1. Change C36 with a 470n capacitor
2. Add a toggle switch on/off/on type as shown
3. Connect 2 electrolitic capacitors as shown to the ground

Double decay cancelation:
Add a 470p capacitor as shown, from R85 to pin3 of IC9

LFO rates:
1. Add a toggle switch on/off/on type as shown
2. Connect 2 electrolitic capacitors as shown

LFO square out
1. Add 10k resistor at pin1 of IC17
2. At the other end of the resistor, add a pot and a 6k8 resistor to the ground
3. Send the pot to a jack.