PCB Dub Siren Parts List

D1—1N4148
D2—1N4148
D3—1N4148
D4—1N4148

R1—10k
R2—10k
R3—1k
R4—1k
R5—47k
R6—2k2
R7—1k
R8—100k
R9—1k
R10—220k
R11—220k
R12—100k
R13—100k
R14—4k7
R15—4k7
R16—100k
R17—22k
R18—22k

C1—10nF
C2—10nF
C3—10µF
C4—10µF
C5—100µF
C6—100nF
C7—100nF

Q1—2N3906
Q2—2N3906
Q3—2N3904
Q4—2N3904
Q5—2N3904

DS1—LED 3mm

LFO_LOW—**PTV09A-4020F-B104** (100k, linear taper vertical potentiometer)
LFO_HIGH—**PTV09A-4020F-B104** (100k, linear taper vertical potentiometer)
PITCH_LOW—**PTV09A-4020F-A104** (100k, log taper vertical potentiometer)
PITCH_HIGH—**PTV09A-4020F-A104** (100k, log taper vertical potentiometer)

MANUAL_AUTO— **JS202011CQN** (DPDT, on-on slide switch)
MODE—3P4T rotary switch, 26x38mm
HOLD—push button switch, 6mm x 6mm
MUTE—**100SP5T1B1M2QEH** (SPDT toggle switch)
AUX—**SJ1-3533** (3.5 mm Right-Angle Stereo Jack, 3 Pin PCB Mount, Threaded w/ Nut)

Battery and holder—9v battery case with switch

PCB Dub Siren Build Instructions

1. Solder diodes, resistors, capacitors, and transistors according to the values above. Start with the smallest components. Pay careful attention to the cylinder-shaped capacitors, the diodes, and the transistors to make sure they are soldered in the correct orientation. Solder the LED at component DS1. The components should match the markings on the PCB. All other components can be soldered in any orientation. Trim the legs of each component once it has been soldered.
2. Solder the MANUAL_AUTO slide switch, the MODE rotary switch, the HOLD push button, the MUTE toggle switch, and the AUX jack. Add a knob to the rotary switch.
3. Solder vertical potentiometers to the PITCH_LOW, PITCH_HIGH, LFO_DUTY_LOW, and LFO_DUTY_HIGH pads. Add knobs to each.
4. Solder the red end of the battery pack holder to the V+ pad in the top right of the board.
5. Solder the black end of the battery pack holder to the GND pad in the top right of the board.
6. Add a battery to the holder.
7. Turn on the battery connection with the switch on the battery pack holder and test your build using a speaker or headphones connected to the aux jack.
8. If a stereo instrument is preferred to a mono instrument, solder a small piece of wire to short the lower two pads of the AUX jack.