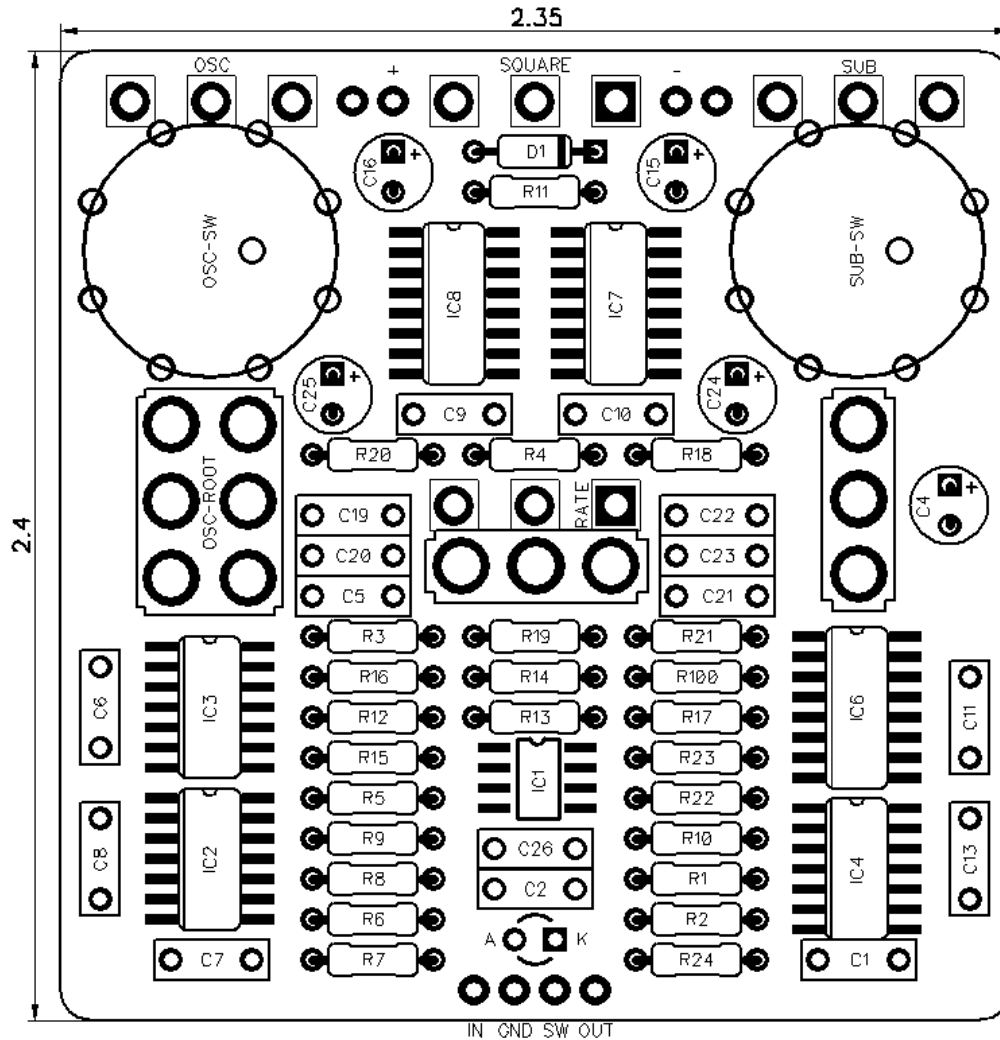




# PedalPCB

## Mini Heterodyne Receiver

Revision 12.29.20



### Controls

**Square** – Controls level of square wave fuzz

**Sub** – Controls level of subdivided frequency

**Super** – Controls level of multiplied frequency

**Sub Interval** (Rotary switch) – Sets the interval of subdivided voice

**Sub Root** (Toggle switch) – Selects the source of the subdivided root

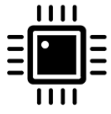
**Super Interval** (Rotary switch) – Sets the interval of the multiplied voice

**Super Root** (Toggle switch) – Selects the source of the multiplied voice

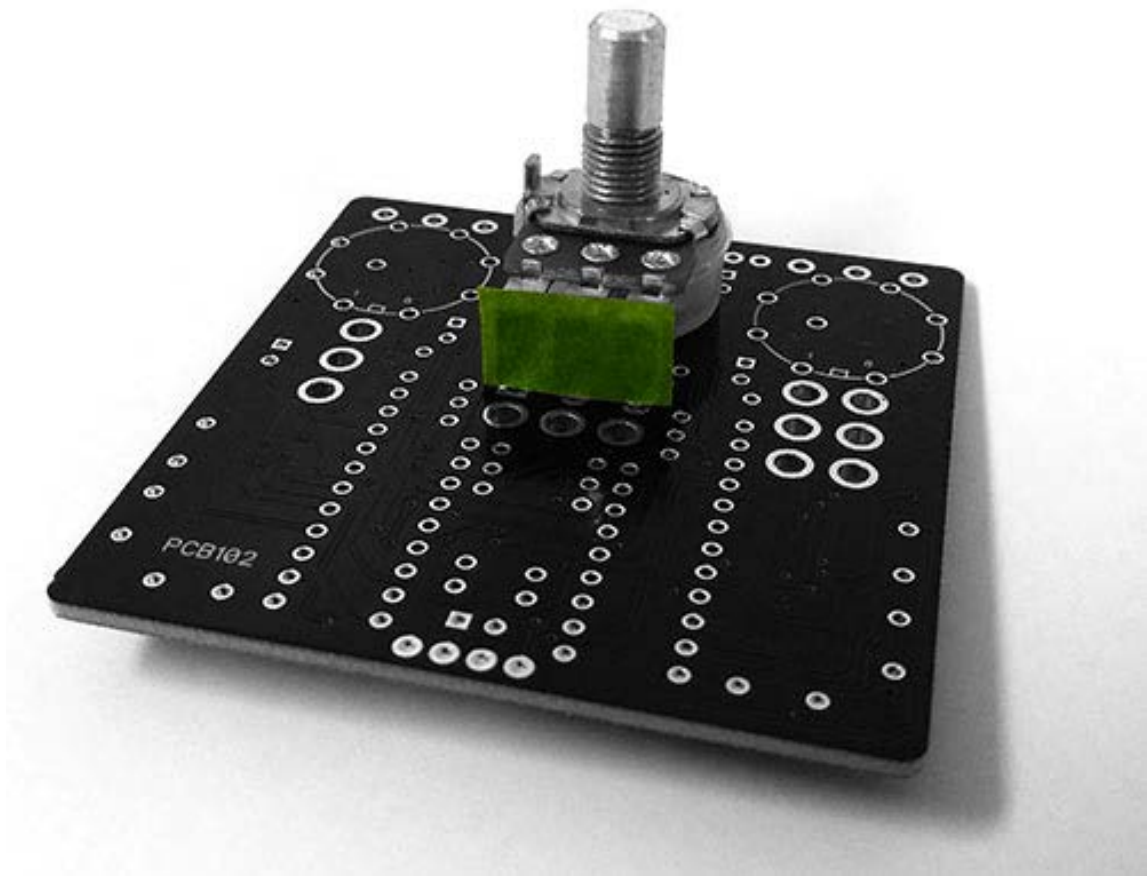
**Portamento / Vibrato** (Toggle switch) – Selects between Portamento / Vibrato pitch modulation

**Modulation Rate** – Controls the rate of pitch modulation

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## Important Assembly Instructions



Apply a small piece of insulating tape (Kapton tape, electrical tape, etc) to the lugs of the Modulation Rate potentiometer to prevent contact with the metal housing of the Portamento/Vibrato toggle switch.

**RESISTORS**

R1 1M  
 R2 1K  
 R3 1M  
 R4 47K  
 R5 47K  
 R6 470K  
 R7 1M  
 R8 470K  
 R9 10K  
 R10 10K  
 R11 10R  
 R12 10K  
 R13 10K  
 R14 10K  
 R15 10K  
 R16 1K  
 R17 1M  
 R18 47K  
 R19 10K  
 R20 100R  
 R21 10R  
 R22 100R  
 R23 10M  
 R24 100K  
 R100 4K7

**CAPACITORS**

C1 100p  
 C2 100n  
 C4 10u  
 C5 1u  
 C6 100n  
 C7 22n  
 C8 100n  
 C9 100n  
 C10 100n  
 C11 100n  
 C13 100n  
 C15 100u  
 C16 100u  
 C19 1u  
 C20 1u  
 C21 1u  
 C22 1u  
 C23 100n  
 C24 22u  
 C25 2u2  
 C26 470p

**INTEGRATED CIRCUITS**

IC1 TL072CDR  
 IC2 CD4069UBM  
 IC3 CD40106BM  
 IC4 CD4024BM  
 IC6 CD4046BNSR  
 IC7 CD4017BM  
 IC8 CD4017BM

**DIODES**

D1 1N5817

**POTENTIOMETERS**

OSC B100K  
 RATE A500K  
 SQUARE B100K  
 SUB B100K

**SWITCHES**

OSC-SW Mini 1P8T - <https://www.pedalpcb.com/product/mini-1p8t/>  
 SUB-SW Mini 1P8T - <https://www.pedalpcb.com/product/mini-1p8t/>  
 SUB-ROOT SPDT (On/On) - *Short shaft toggle recommended*  
 GLIDE SPDT (On/On) - *Short shaft toggle recommended*

OSC-ROOT Type-2 DPDT (On/On/On)\*

**IMPORTANT NOTE:** OSC-ROOT switch MUST be a Type-2 DPDT On/On/On toggle switch.

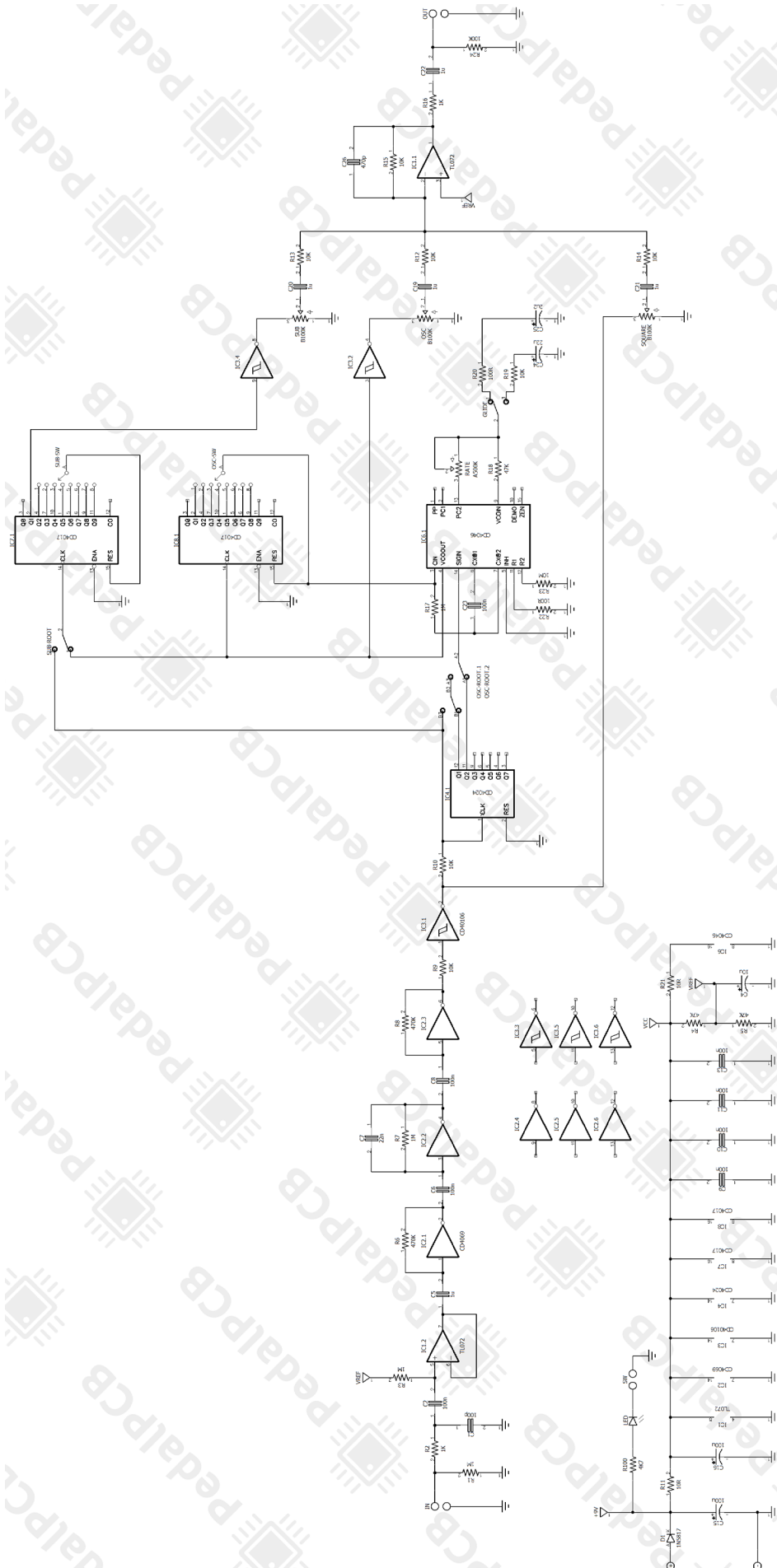
The following are known to be compatible parts:

100-DP6-T200B1M1QE (Short Shaft) **\*\* RECOMMENDED \*\***  
<https://lovemyswitches.com/taiway-dpdt-on-on-on-switch-solder-lug-short-shaft/>

100-DP6-T100B1M1QE (Long Shaft)  
<https://lovemyswitches.com/taiway-dpdt-on-on-on-switch-solder-lug-long-shaft/>

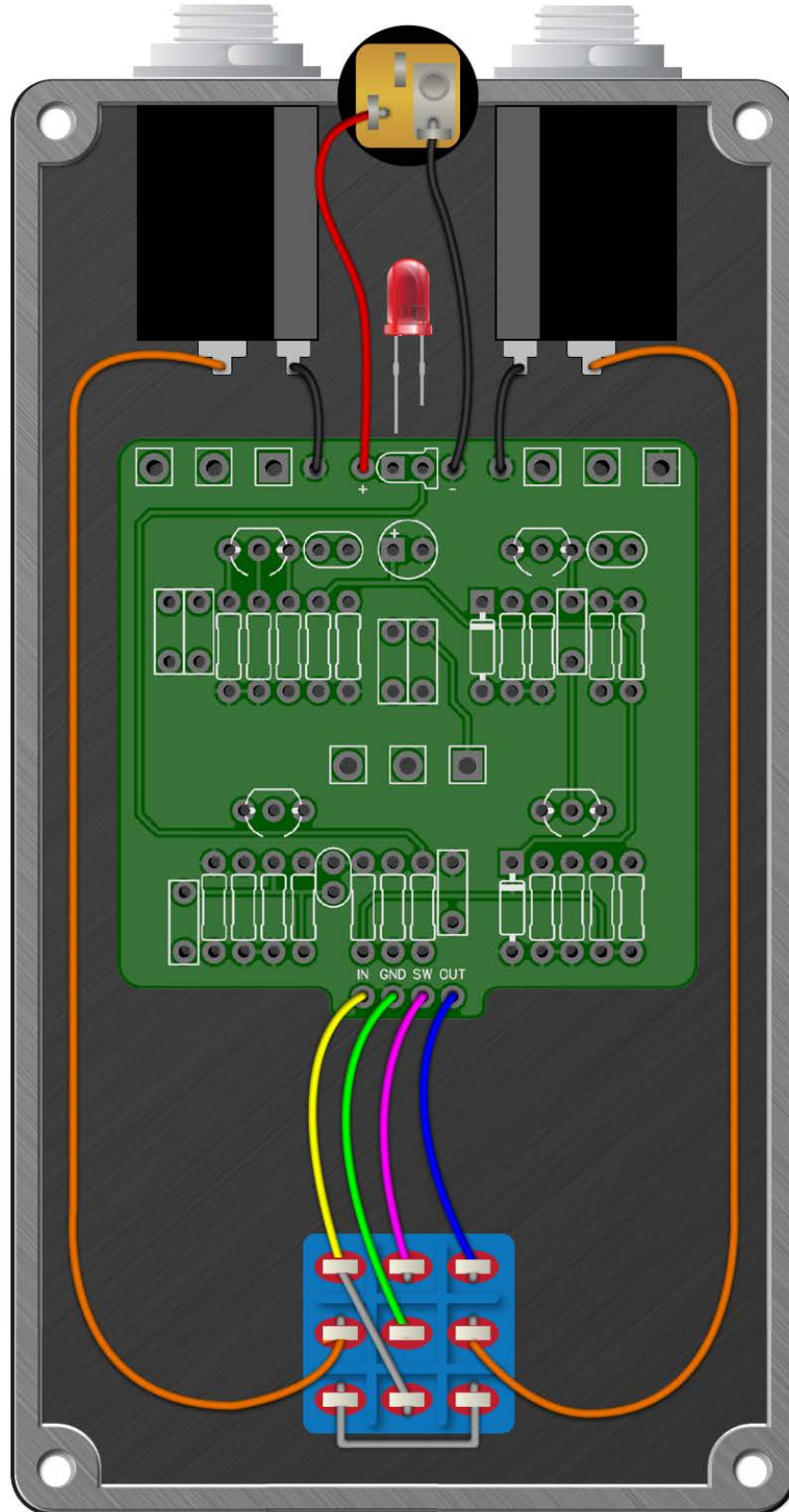
1MD6T1B1C0M1QE (Long Shaft)  
<http://smallbear-electronics.mybigcommerce.com/dpdt-on-on-on-solder-term/>

# Mini Heterodyne Receiver



# Mini Heterodyne Receiver

Wiring Diagram



# Mini Heterodyne Receiver

Drill Template

125B enclosure with top mounted jacks

