

# Roto-Tone by GuitarPCB

This valuable tool allows pedal fanatics to reach new levels of creativity!

Now it is possible to add multiple mods to your favorite effects!

This compact switch and board combination gives you the ability to change out 4 different tonal combinations with a simple quick turn of the dial.

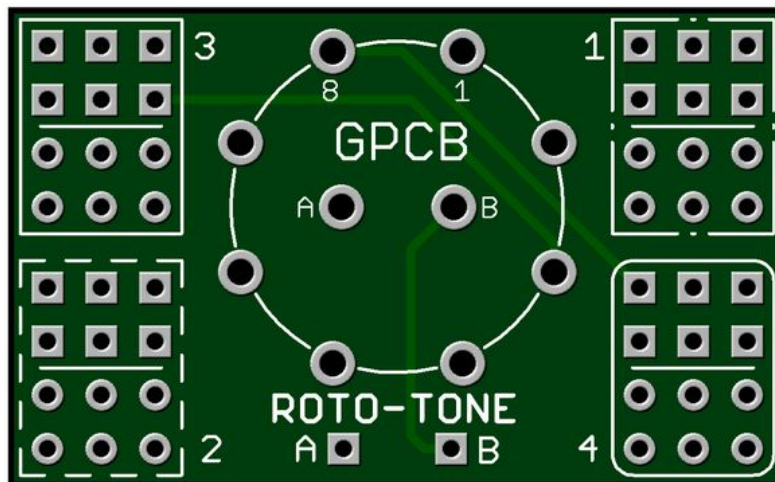
Here is what we have designed the board to accommodate:

- Select different combinations of diodes to provide new tonal pallets
- Change capacitors to select different tonal responses or speed settings
- Change out resistors to modify gain settings, volume levels or tones
- Modify both resistors or diodes and capacitors at the same time
- Trimmers - 6mm and Cermet both of which we carry
- Sockets! Yes you can socket everything
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Among the best features is the small size! The board with switch included is smaller than a typical stand-alone 2P4T switch available at most outlets. This means even in the tightest builds this handy Modder Tool will "float" above many other components inside your enclosure. It is also small enough to fit easily on the sidewall of a 1590B as well. 😊

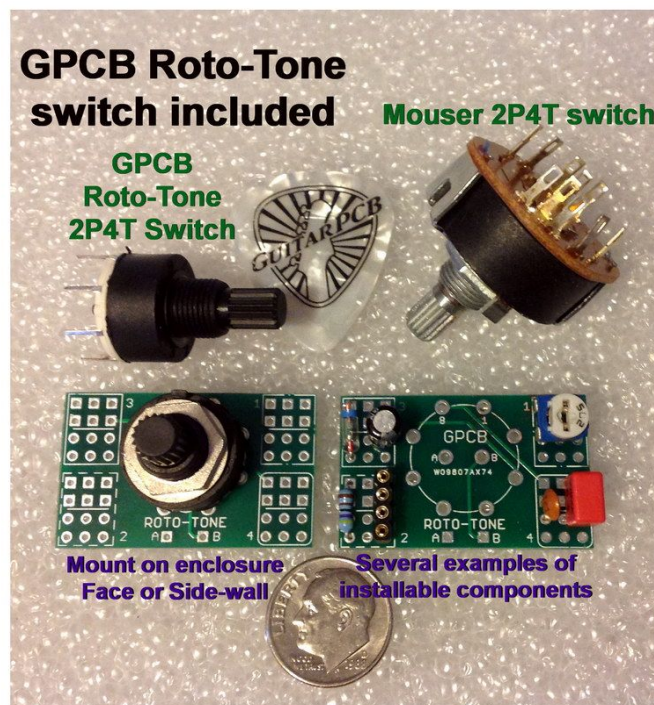
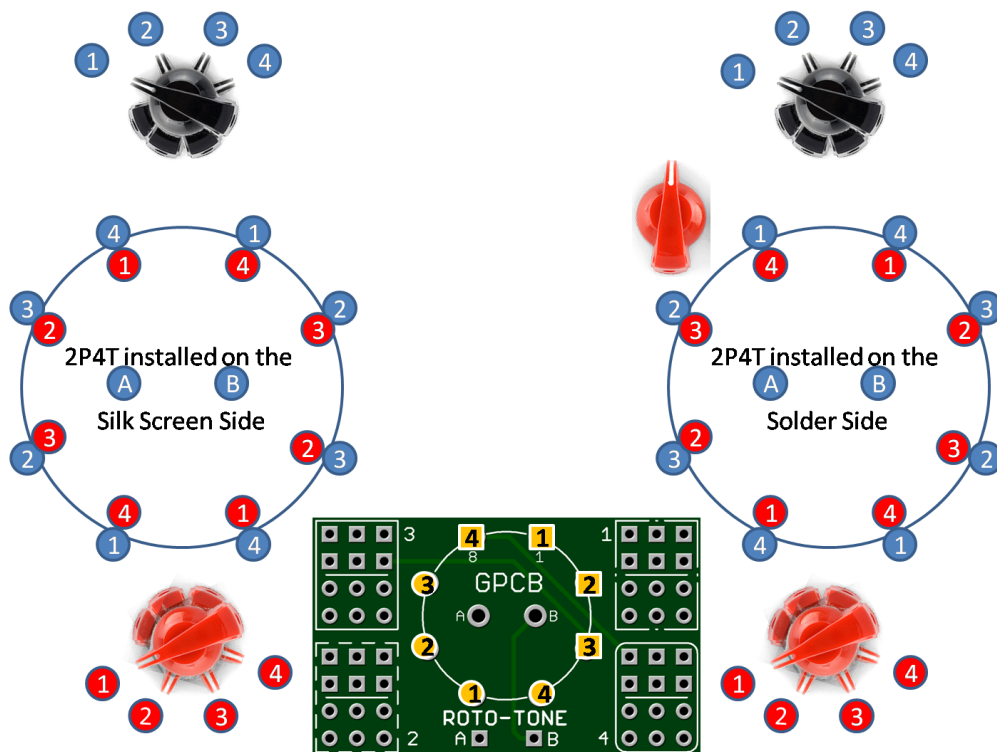
So many Mods are available that we will start dreaming up as many as we can and put together a special PDF guide with some of our favorites. You can help us do that if you wish!

Will update as Mods come in.



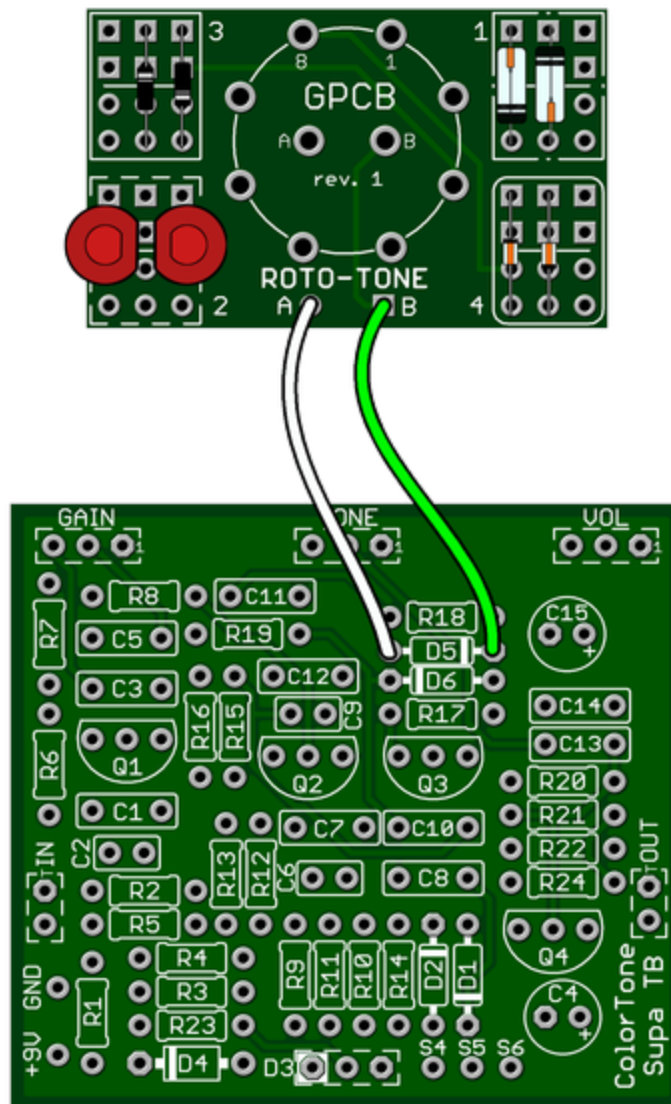
Dimensions only 1.43" x .88" and comes with mini 2P4T rotary switch.

Let explore some visual options on the following pages.



Example of Roto-Tone being used with a ColorTone Supa Fuzz to add more clipping options.

ROTO-TONE DIODE CLIPPING OPTION  
FOR  
COLORTONE SUPA FUZZ TONE BENDER



Replace existing diode pair with ROTO-TONE board. Do not use D6. Populate with your choice of various Diode combinations. Popping may occur when switching. Bypass pedal before switching if this occurs.

## Mod Ideas:

Replace (1) Bias trimmer with (4) Preset trimmers in any Fuzz and switch between Nasty Fuzz, Smooth or anything in between. One of many examples to explore. Here are some more common ideas to try:

- Change out resistors to modify gain settings, volume levels or tones!
- Change capacitors to select different tonal responses or speed settings!
- Modify both resistors or diodes and capacitors at the same time!
- Select different combinations of diodes to provide new tonal pallets!
- Route signals to different destinations!

The possibilities are endless! It is all up to your imagination and desires!

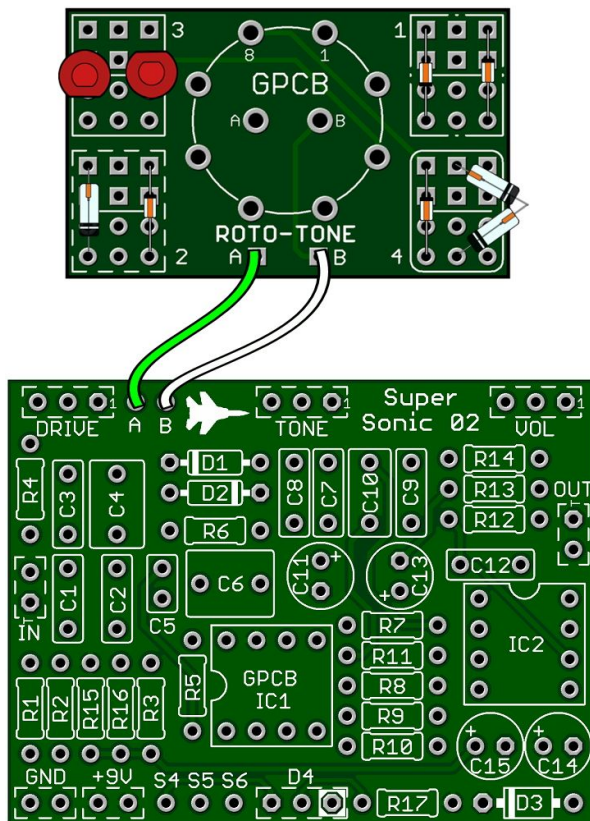
When replacing a single section on a board where clipping diodes are located (check the schematic) and if our board does not already have A/B pads then simply replace the clipping section (leaving it empty) on the main board which is now replaced by the (4) options on the Roto-Tone.

Did you know that many of your favorite effects may have several possible ways to modify their characteristics? In many cases, simply changing a few components can provide new tones with a single turn of the switch!

The tonal possibilities are up to you. Take your pedal building to new levels of creativity! Try adding additional sounds to your favorite effects pedals! Many of our boards contain convenient A/B pads for easy insertion.

### ROTO-TONE DIODE OPTION for SUPER SONIC 02

Replace D1 and D2 with various combinations of clipping diodes to taste.





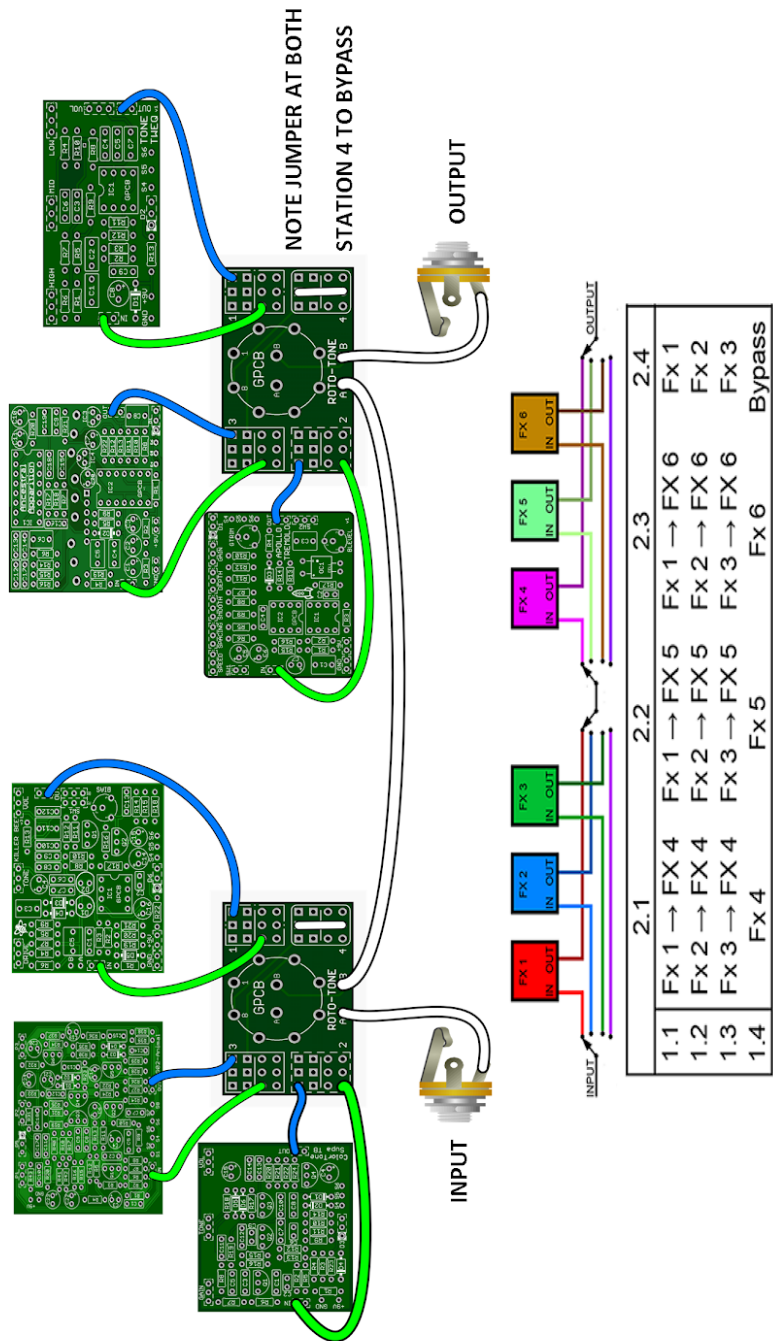
Thanks to Tonmann for the great idea of a circuit switcher & Wilkie for drawing the wiring guide.

# TONMANN'S ROTO-TONE EFFECT SWITCHING WIRING DIAGRAM

## DESIGNED BY THE MASTER HIMSELF HERE IS A CLEVER WAY TO USE TWO ROTO-TONES TO SWITCH EFFECTS!

Not only do you have six individual effects settings and one total bypass setting but you also have nine settings for two circuits in series. Another attractive feature is that the circuit is passive i.e. you don't need a power supply.

The only disadvantage with this type of routing switch is that it is almost impossible to make changes on the fly i.e. in the middle of playing, to do that you will need to use digital switching.



Using the ideas from the previous page here is a Circuit Comparator as built by Wilkie1



This is an invaluable tool for pre-testing multiple circuits before boxing them up. Thanks Wilkie1.

Use either 1/4" jacks for pedals or wire clips to attach up to 4 separate circuits for testing.  
You can even add multiple circuits on each loop for combo testing.  
Add a wire to any one of the four switch selectors for "bypass sound".

Attach a power source. I prefer a good bench supply.

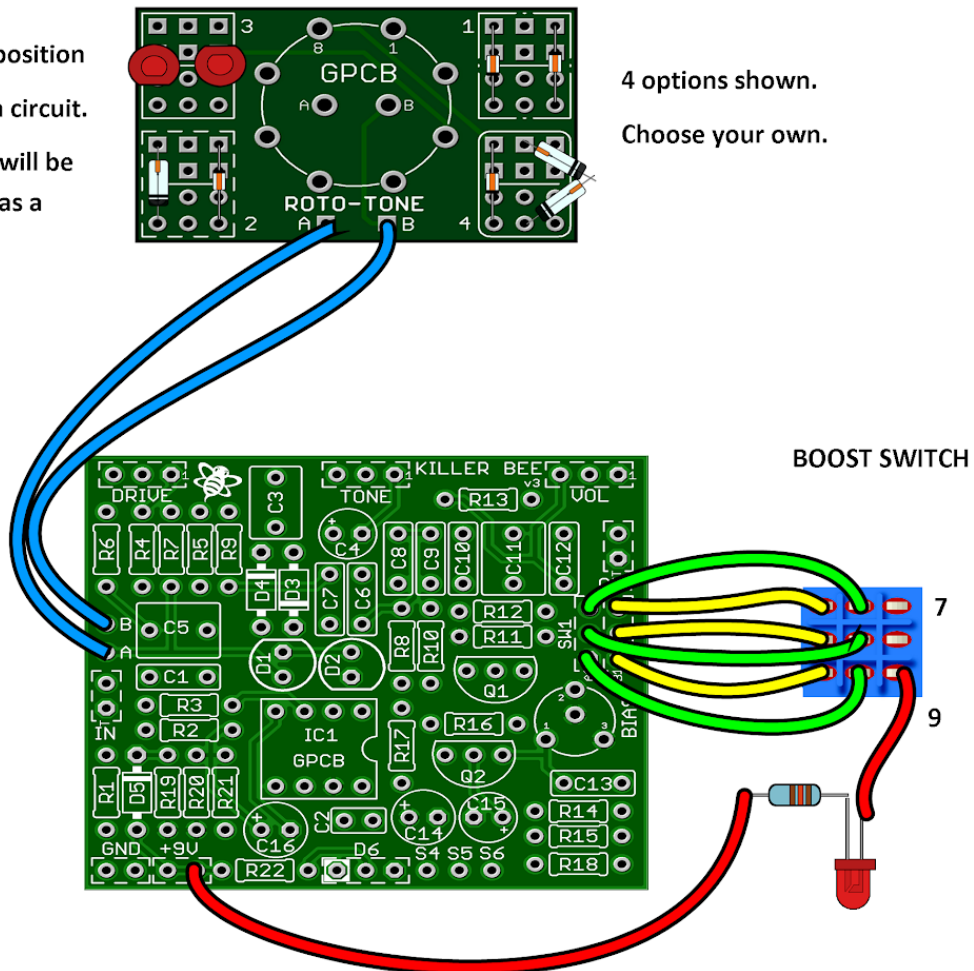
1. Simply set a comfortable output level.
2. Match the outputs of all circuits as closely as possible to avoid uneven volume levels.
3. Test each circuit and switch between circuits quickly to compare tonal variances.
4. Change circuit settings and rebalance levels before resuming tests.
5. Multiple circuit chains can be tested by looping pedals in each of 4 test positions.

This device is most useful for builders, moderators, and musicians wanting to rapidly test and compare effects pedals under controlled conditions.

## ROTO-TONE DIODE OPTIONS

### BOOST STAGE STATUS LED OPTION

4 options shown.  
Choose your own.



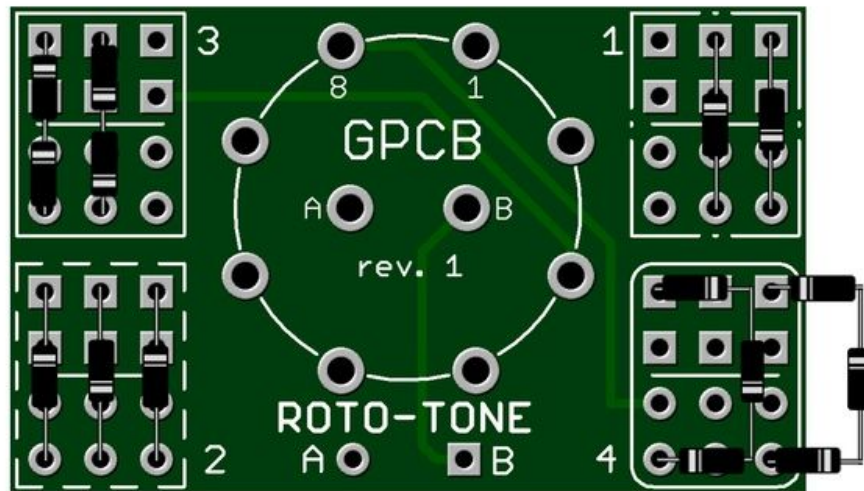
If using the Roto-Tone, do not install D1 and D2 on the Killer Bee board. They may be used as one of the four options on the Roto-Tone. Try various options on the Roto-Tone. Results may vary.

As shown, the LED will light when the Boost is ON. To reverse, move the red wired from lug 9 to lug 7.

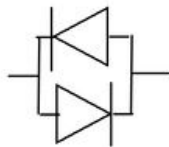
## ROTO-TONE SWITCHING GUIDE

DIODE OPTIONS: Aside from unique diode types...

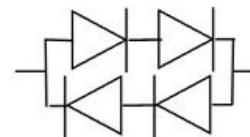
Here are some additional ways to use them for more versatility



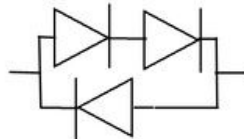
1. DIODE PAIR



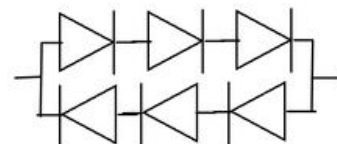
3. DOUBLE PAIR



2. ASYMMETRIC



4. TRIPLE PAIR



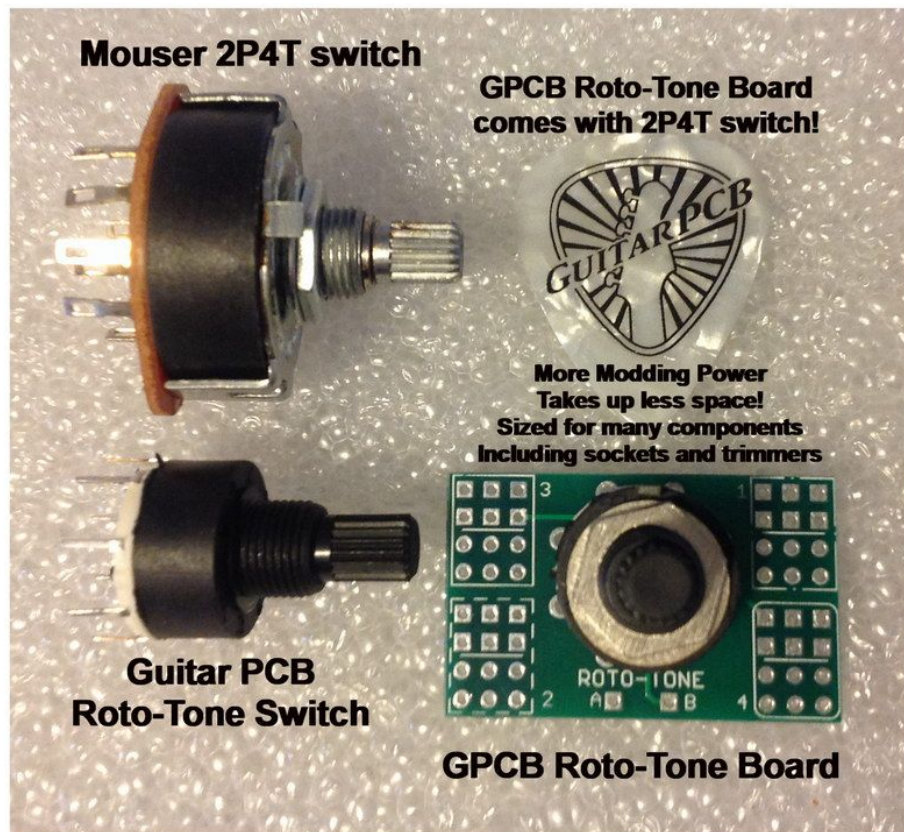
MIXING DIFFERENT DIODES WILL ALSO PROVIDE SONIC OPTIONS.

TRY 1N34A, 1N914, 1N4148, BAT41, BAT46, RED, GREEN, YELLOW LEDS.

USE ONE OR MORE OPTIONS TOGETHER.

COMPONENTS MAY BE SOLDERED ON EITHER SIDE OF THE BOARD.





For transistors, diodes, and LED's, use SIP (Single inline package) sockets. You simply cut the number of sockets required with an Exacto / Stanley knife or by gripping and rocking with pliers. This allows for easy changes and troubleshooting.



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