



Ruby / Noisy Cricket

A couple of saucy
little amps



Important notes

If you're using any of our footswitch daughterboards, DOWNLOAD THE DAUGHTERBOARD DOCUMENT

- Download and read the appropriate build document for the daughterboard as well as this one BEFORE you start.
- DO NOT solder the supplied Current Limiting Resistor (CLR) to the main circuit board even if there is a place for it. This should be soldered to the footswitch daughterboard.

POWER SUPPLY

Unless otherwise stated in this document this circuit is designed to be powered with 9V DC.

COMPONENT SPECS

Unless otherwise stated in this document:

- Resistors should be 0.25W. You can use those with higher ratings but check the physical size of them.
- Electrolytics caps should be at least 25V for 9V circuits, 35V for 18V circuits. Again, check physical size if using higher ratings.

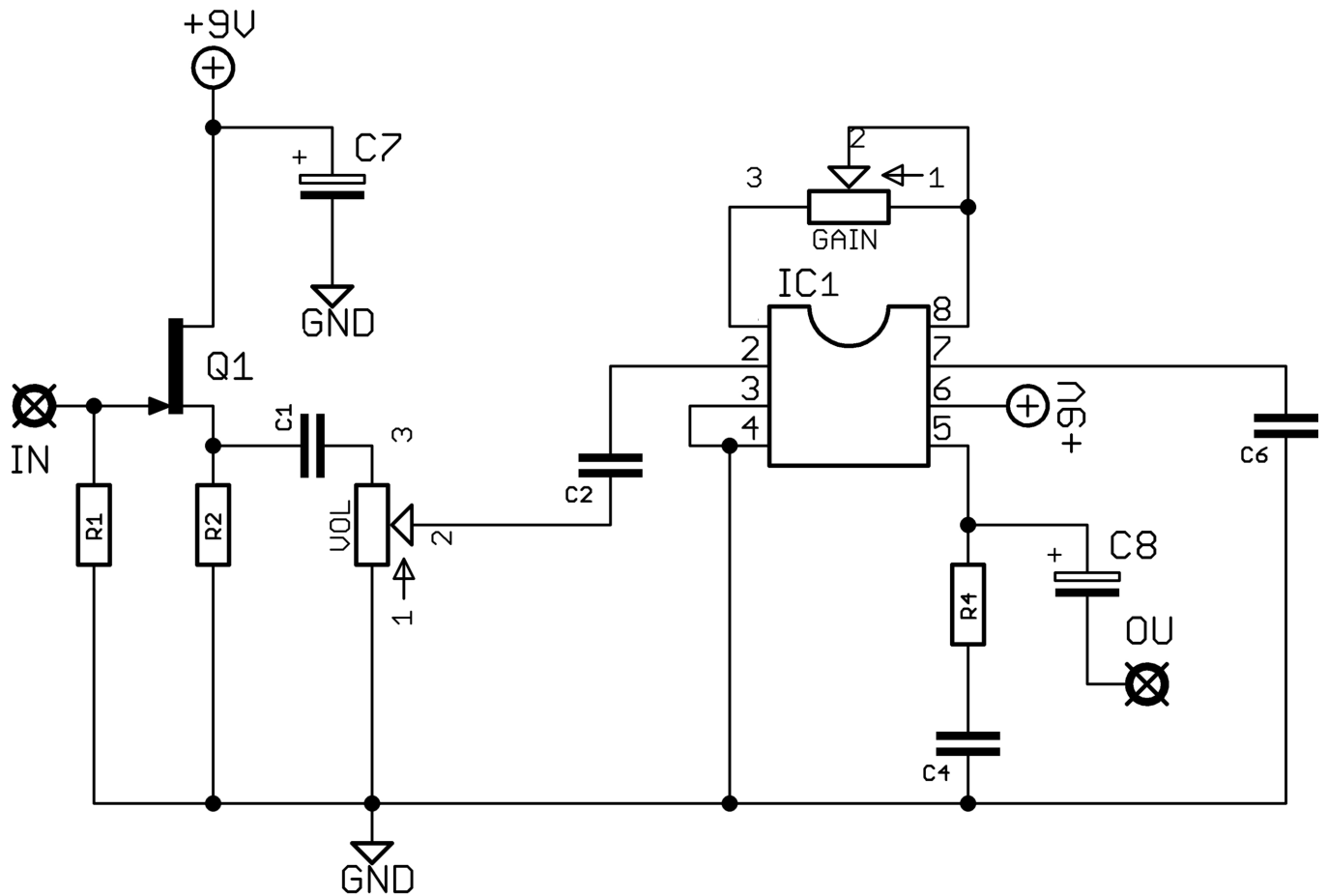
LAYOUT CONVENTIONS

Unless otherwise stated in this document, the following are used:

- **Electrolytic capacitors:**
Long leg (anode) to square pad.
- **Diodes/LEDs:**
Striped leg (cathode) to square pad. Short leg to square pad for LEDs.
- **ICs:**
Square pad indicates pin 1.

Schematic

RUBY



R1 1M5
R2 3K9
R4 10R

C1 47n
C2 100n
C3 Empty
C4 47n
C5 Empty
C6 100n
C7 100u elec
C8 220u elec**

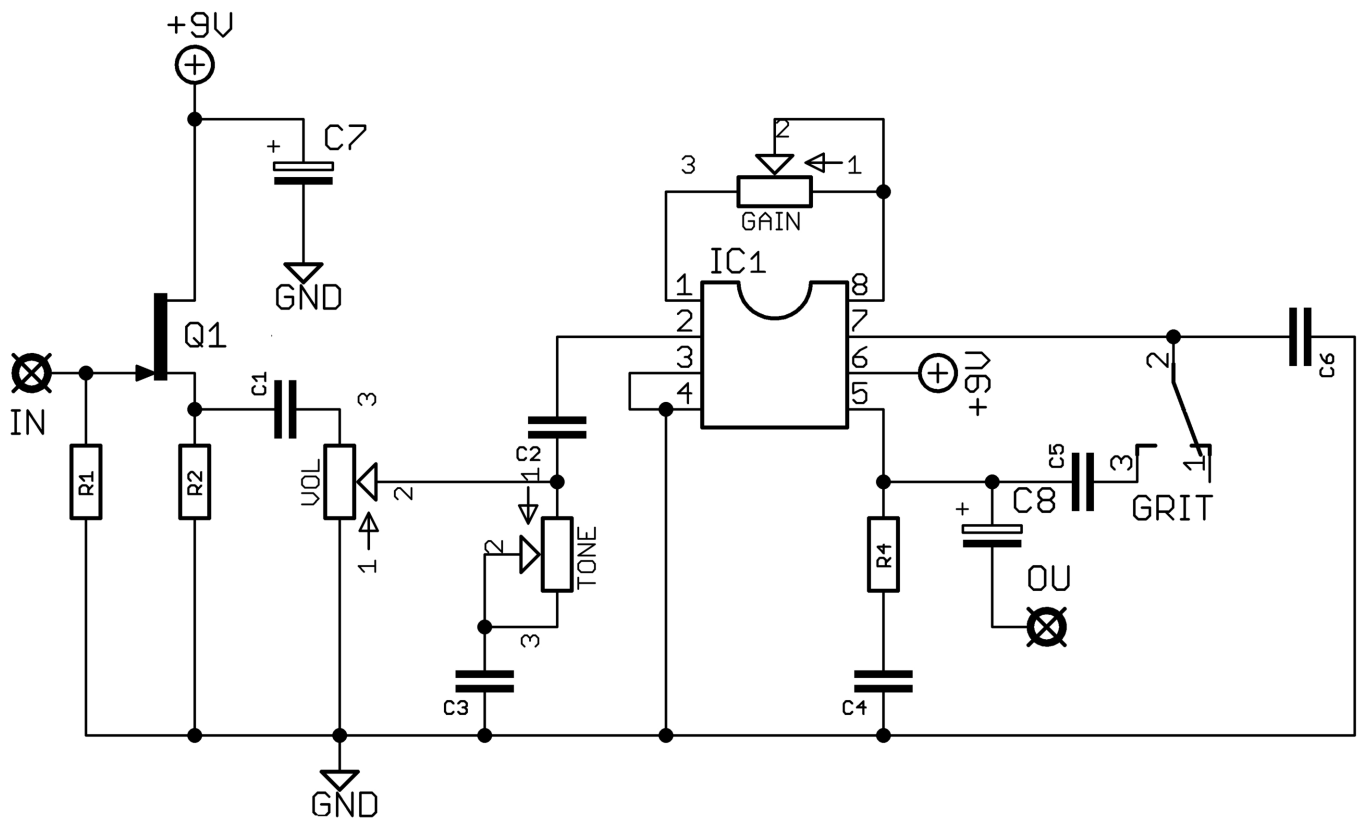
Q1 2N5457*
IC1 LM386-N1
VOL 10KB
GAIN 1KB

*Other FETs will work, such as J201. This section is working as a buffer and will have little bearing on the tone. Pads are provided for through-hole or SMT FETs.

**We've been building these for years will 100u at the output. It's plenty bassy.

Schematic

NOISY CRICKET



R1 1M5
R2 3K9
R4 10R

C1 47n
C2 100n
C3 100n***
C4 47n
C5 100n
C6 100n
C7 100u elec
C8 220u elec**

Q1 2N5457*
IC1 LM386-N1

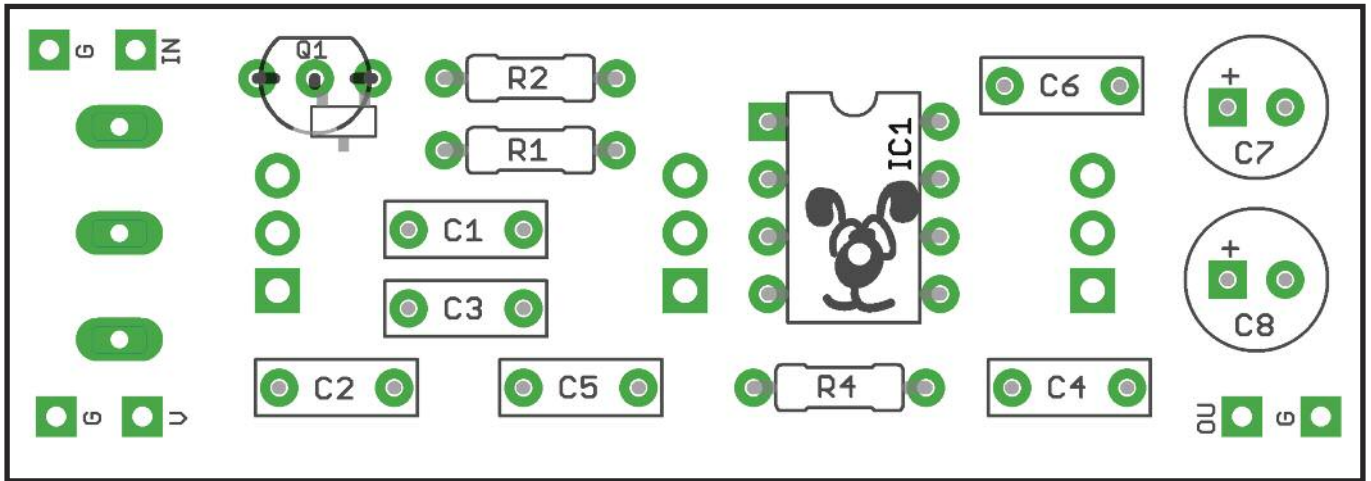
VOL 10KB
GAIN 1KB
TONE 100KB***

GRIT SPDT ON-ON

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***To build it without the tone control simply leave out these parts.
No jumpers required.

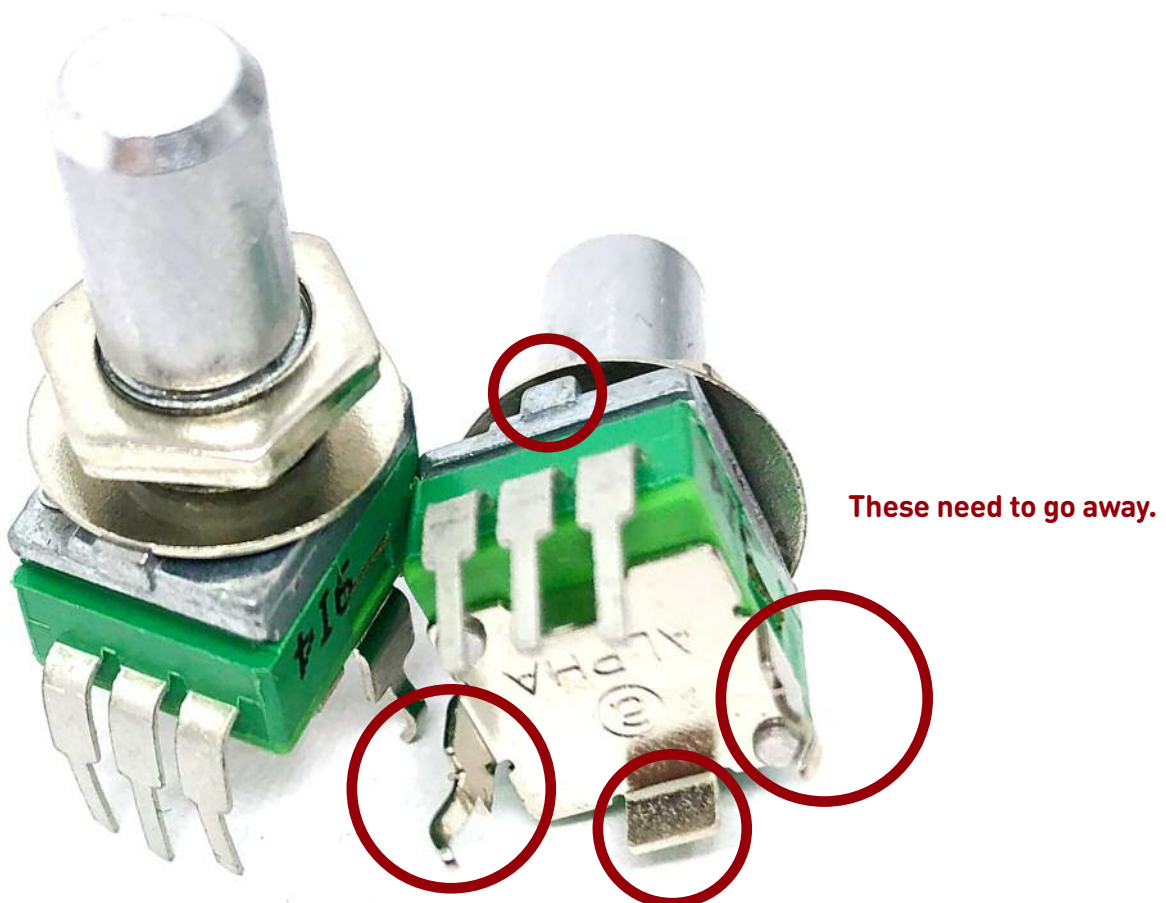


Be very careful when soldering Q1. FETs are very sensitive to heat. You should use some kind of heat sink (crocodile clip or reverse action tweezers) on each leg as you solder them. Keep exposure to heat to a minimum (under 2 seconds). Same goes for the IC if you aren't using a socket.

You need to remove anything that's sticking out of the 9mm pot other than the three PCB pins. It should snip off easily with wire cutters.

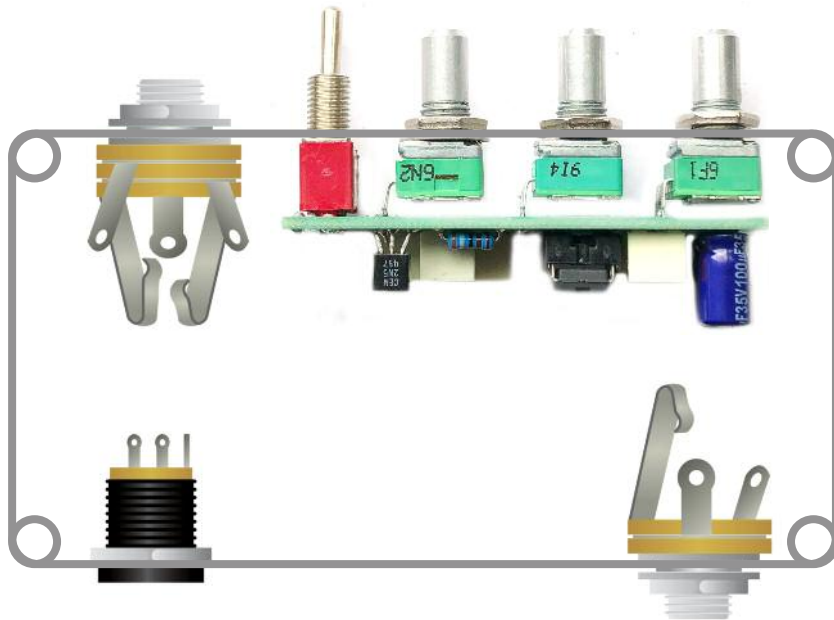
You should solder all other board-mounted components before you solder the pots. Once they're in place you'll have no access to much of the board. Make sure your pots all line up nicely. The best way to do that is to solder a single pin of each pot in place then melt and adjust if necessary before soldering in the other two pins. Don't push the pins all the way into the PCB - give yourself 1-2mm of wiggle room on the pot height if you're going to be adding the toggle switch.

If you're wiring your pots, the square pad is pin 1.



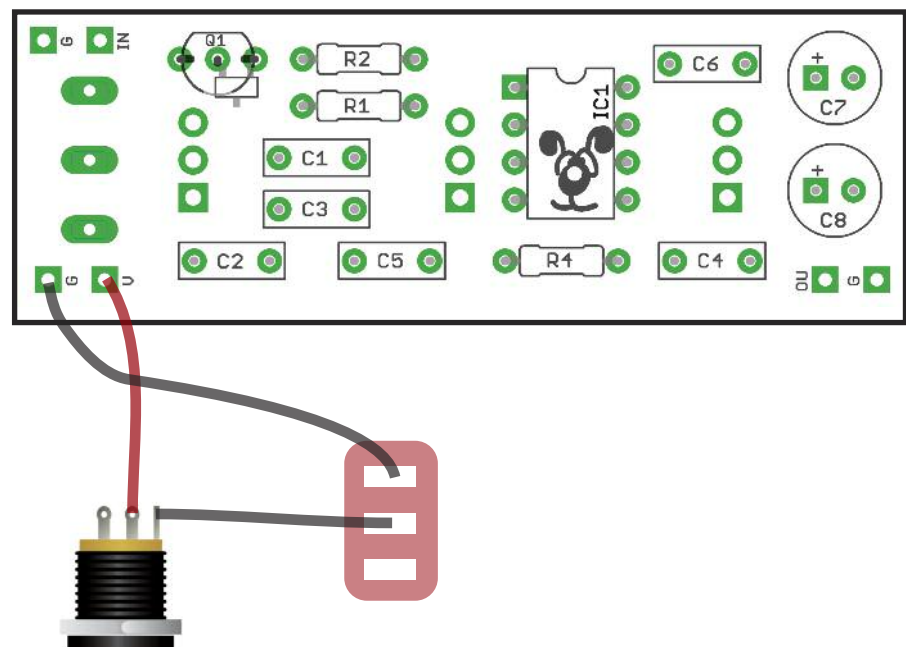
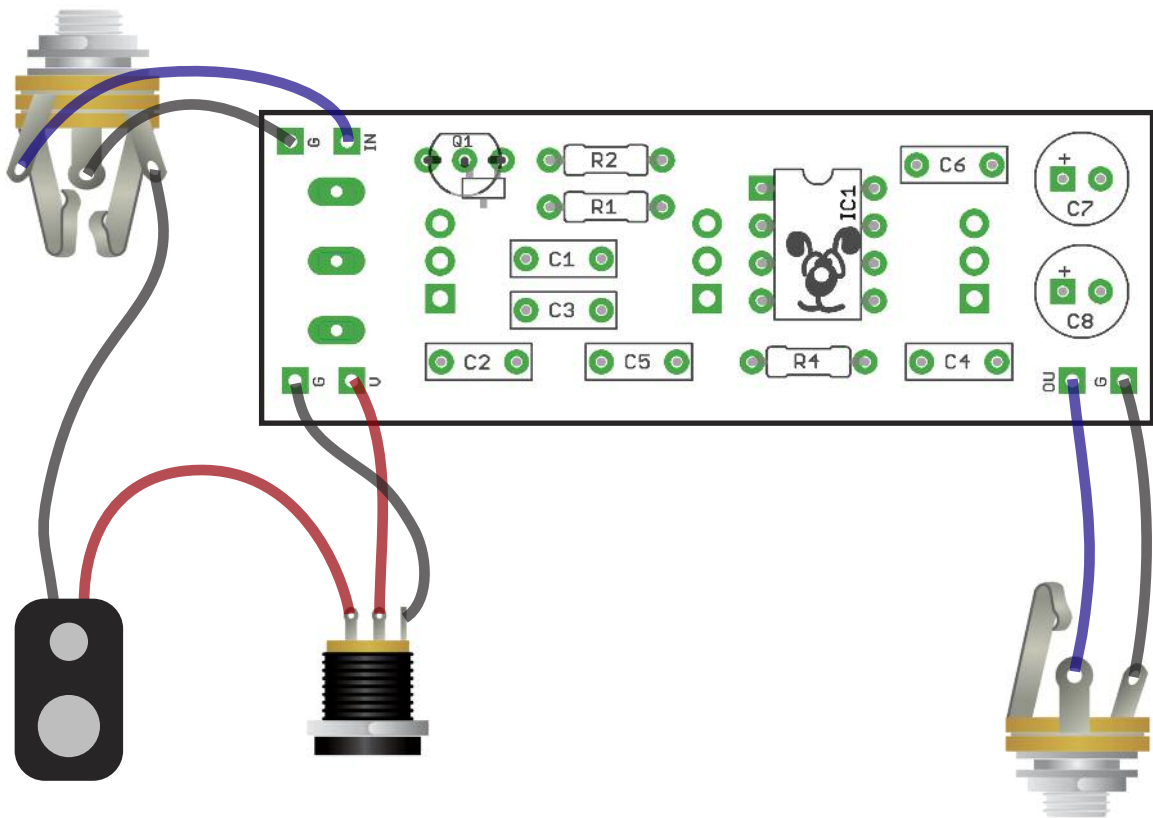
Enclosure layout

Of course you can lay it out however you like, but it was designed for this configuration in a 1590B.



Wiring

This configuration, using a TRS input jack, will disconnect the battery when the jack is unplugged. However, if you have a DC supply connected it will be on all the time. You can add an on/off switch inline with the ground wire between the DC socket and the PCB - see bottom.

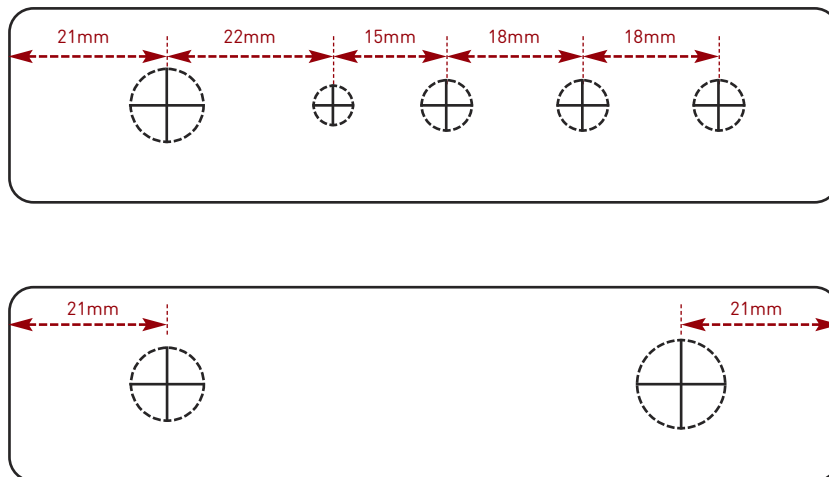


Drilling guides - 1590B

Pots are 7mm, toggle switch is 6mm. However, adding 1mm to each will make for less headaches when boxing up your circuit.

Jacks are normally 10mm, DC socket is 12mm.

This layout will give you space between the DC and output jack to fit a PP3 battery.



This templates are rough guides only. You should ensure correct marking of your enclosure before drilling. You use this template at your own risk.

Pedal Parts Ltd can accept no responsibility for incorrect drilling of enclosures.

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