Maharaja's Hi-Times 10 MEG BBS C/F <Call> (702)-832-7469 Formatted for 80 columns. **\$\$ \$\$** \*\*\*\*\* **\$\$ \$\$ \$\$ \$\$** \* How to make a \* **\$\$** \*\*\*\*\* **\$\$ \$\$ \$\$ \$\$**  $\diamond$  Pearl Box  $\diamond$ \$\$ **\$\$ \$\$** \$\$ Written and created by: Dr. D-Code **\$\$ \$\$ \$\$** \$\$ (Sysops may use this information if it's not altered in any way at all) \$\$ **\$\$ \$**\$ 

The Pearl Box:Definition - This is a box that may substitute for many boxes which produce tones in hertz. The Pearl Box when operated correctly can produce tones from 1-9999hz. As you can see, 2600, 1633, 1336 and other crucial tones are obviously in its sound spectrum.

Materials you will need in order to build The Pearl Box:

C1, C2:5mf or .5uf ceramic disk capacitors
Q1:NPN transistor (2N2222 works best)
S1:Normally open momentary SPST switch
S2:SPST toggle switch
B1:::::Standard 9-Volt battery
R1:::::Single turn, 50k potentiometer
R2: " 100k potentiometer
R3: " 500k potentiometer
R4: " 1meg potentiometer
SPKR:Standard 8-ohm speaker
T1::Mini transformer (8-ohm works best)
MiscWire, solder, soldering iron, PC board or perfboard, box to
contain the completed unit, battery clip

Instructions for building The Pearl Box:

Since the instruction are EXTREMELY difficult to explain in words, you will be given a schematic instead. It will be quite difficult to follow but try it any way. There is also a Hi-Res picture you can get that shows the schematic in great detail.

## (Schematic for The Pearl Box)



Now that you are probably thoroughly confused, let me explain a few minor details. The potentiometer area is rigged so that the left pole is connected to the center pole of the potentiometer next to it. The middle terminal of T1 is connected to the piece of wire that runs down to the end of the battery.

Correct operation of The Pearl Box:

You may want to get some dry-transfer decals at Radio Shack to make this job a lot easier. Also, some knobs for the tops of the potentiometers may be useful too. Use the decals to calibrate the knobs.

R1 is the knob for the ones place, R2 is for the tens place, R3 if for the hundreds place and R4 is for the thousands place. S1 is for producing the all the tones and S2 is for power.

- Step 1: Turn on the power and adjust the knobs for the desired tone. (Example: For 2600 hz- R1=0:R2=0:R3=6:R4=2)
- Step 2: Hit the pushbutton switch and VWALA! You have the tone. If you don't have a tone recheck all connections and schematic. If you still don't have a tone call Brainstorm BBS:612-345-2815, The Bay:415-775-2384 or Pirate's Harbor:617-720-3600 and leave me e-mail stating what the scene is.

This has been a High Mountain Hackers presentation - 1985