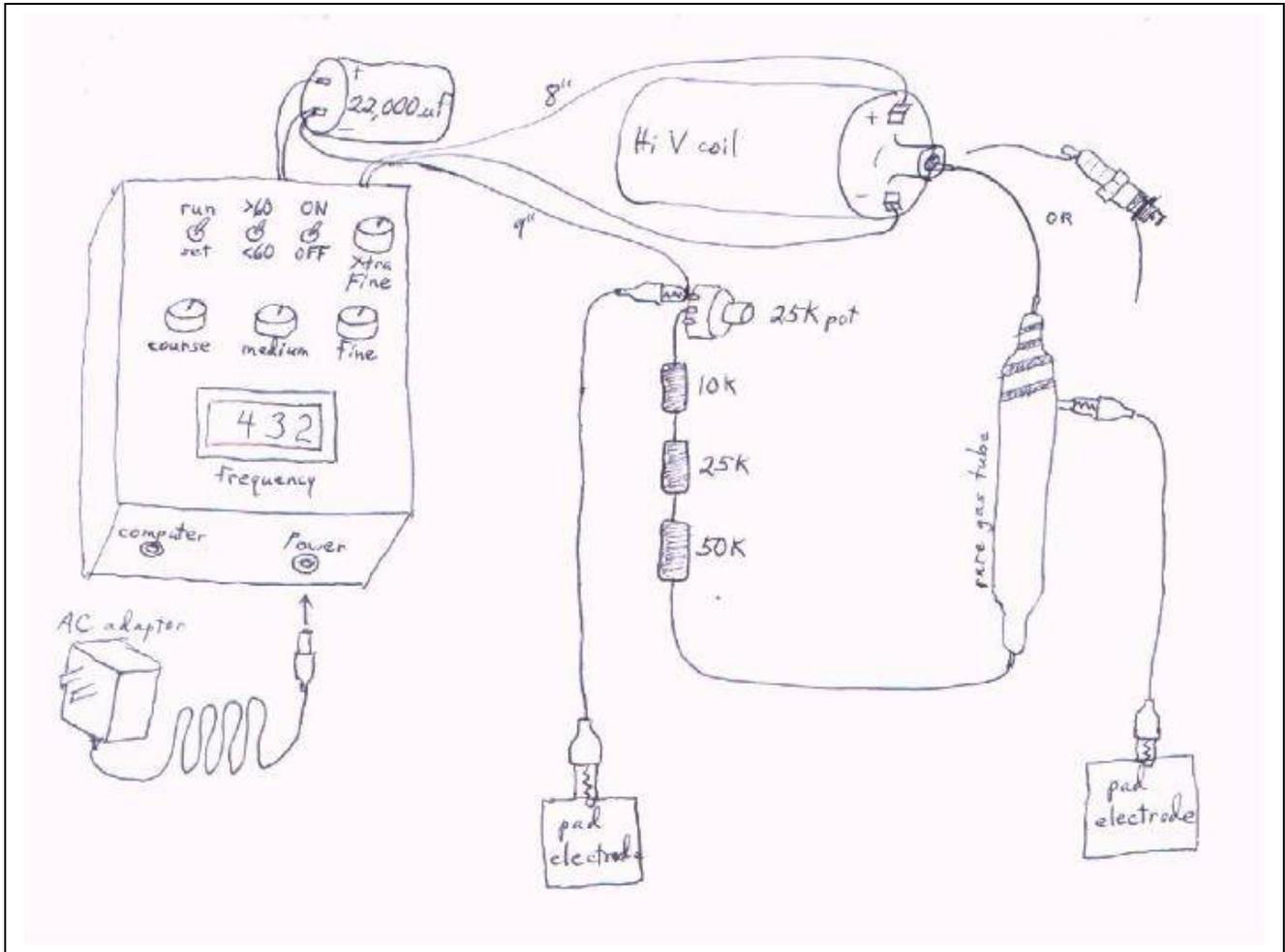
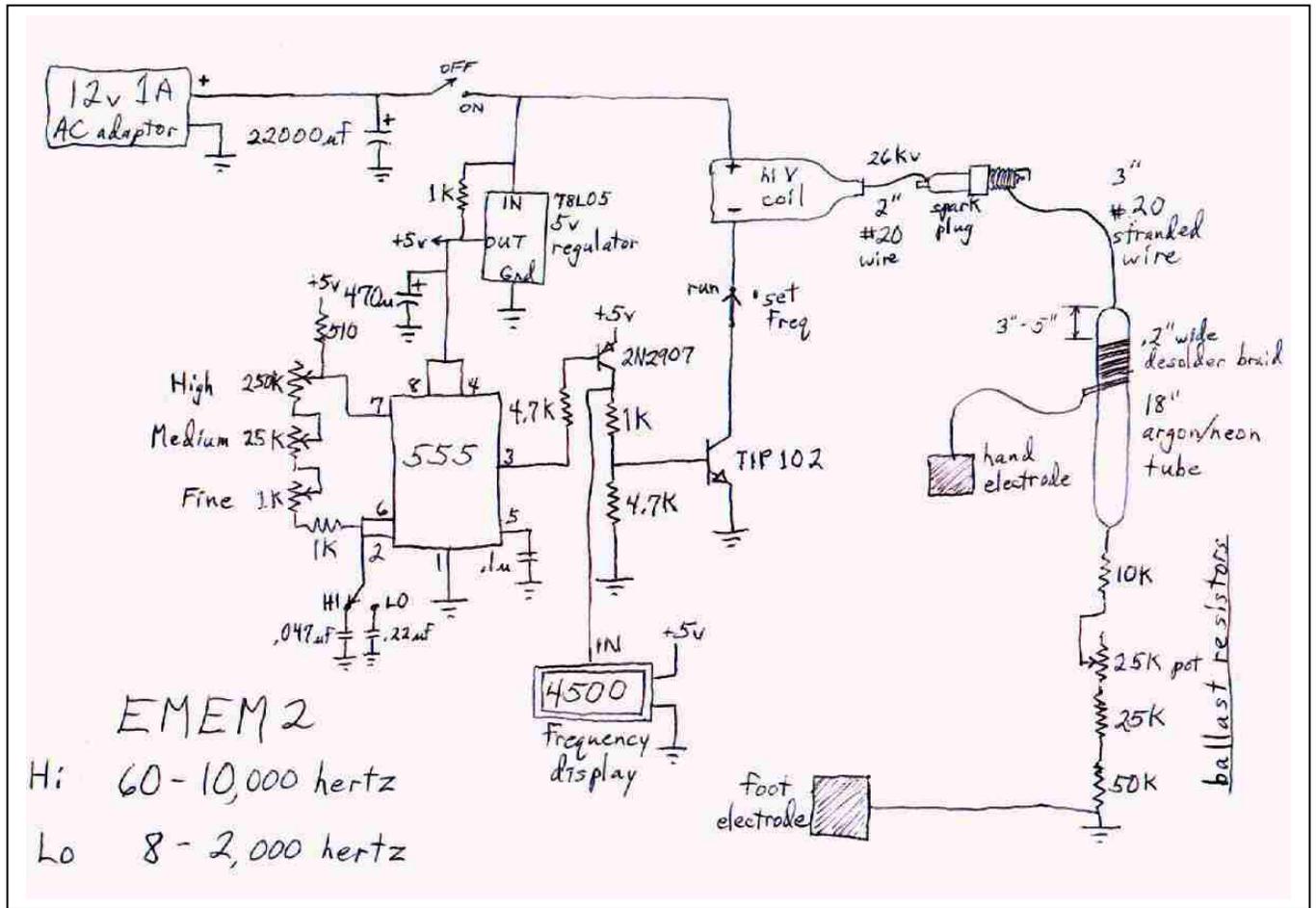


Construction Plans for EMEM2

This device was developed as a different type of light-emitting Rife device that can be used as a contact or non-contact treatment device.



EMEM2 Drawing



EMEM2 Schematic

PARTS LIST for EMEM2

DigiKey Corp.
<http://www.digikey.com/>
 ph 800-344-4539 fx 218-681-3380

Qty	Part Description	#	Cost
1	5v regulator	296-1365-1-ND	\$.40
1	digital display	RLCU02-ND	48.60
(display substitutes: RLC06-ND \$40 + RLC10-ND \$31 [both])			
1	.1µf capacitor, 10	3013PH-ND	2.07
1	.22µf capacitor, 10	3015PH-ND	2.15
1	50K/12W resistor	FVTS10-50.0K-ND	4.95
1	25K/5W resistor	ALSR5J-25.0K-ND	1.53
1	10K/5W resistor	ALSR5J-10.0K-ND	1.56
1	25K/5W potentiometer	CT2160-ND	3.61
1	250ohm/2W pot	RV4N251C-ND	7.15
1	TO-220 hardware	4724K-ND	1.75
1	24ga single wire 100'	C2015Y-100-ND	15.00

\$88.77

Mouser Electronics
<http://www.mouser.com/> sales@mouser.com
 ph 800-346-6873 fx 817-483-6899

Qty	Part Description	#	Cost Total
1	2200uf capacitor	5985-85-25V22000	\$5.18
1	250K potentiometer	313-1000-250K	1.21
1	25K potentiometer	313-1000F-25K	1.38
1	2K potentiometer	313-1000-2K	1.21
3	pot knob	450-2070	2.97
1	510 resistor	30BJ250-510	.22
3	1K resistor	30BJ250-1.0K	.66
2	4.7K resistor	30BJ250-4.7K	.44
1	470uf/10v capacitor	140-XRL10V470	.12
1	.047uf capacitor	140-PF1H473K	.17
1	8 pin IC socket	517-ICO-083-38-T	.16
1	2.5/5.5mm barrel jack	163-4305	2.04
1	IC timer	511-NE555N	.17
1	.21" desolder braid	577-1806-5F	3.30
1	TO-220 heat sink	532-530613B00	.38
1	1/8" heat shrink	5174-1185	.72

 subtotal \$20.33

JDR Microdevices
<http://www.jdr.com/>
 ph 800-538-5000 fx 800-538-5005

Qty	Part Description	#	Cost Total
1	project box	GPB431	\$2.94
3	switch	SP/DT	3.75
1	PNP transistor	2N2907A	.29
1	NPN darl. transistor	TIP102	.59

 \$7.57

MCM Electronics www.mcmelectronics.com
 ph 800-543-4330 fx 937-434-6959

Qty	Part Description	#	Cost
1	12V/1A AC adaptor	28-1440	\$8.46

 \$8.46

NAPA Auto Parts Store, www.napaonline.com

Qty	Part Description	#	Cost
1	GM ignition coil	MPEIC12SB	\$14.29
1	Champion spark plug, CJ6	ASP254	\$1.69

 \$15.98

Radio Shack, www.radioshack.com

Qty	Part Description	#	Cost
1	20 ga stranded wire, 75'	278-1388	\$7.99
1	pkg rubber feet, 12	64-2346	\$1.79
1	pc board	276-150	\$1.79

			\$12.57

Rare gas tube supplier:

Bill Cheb, 9828 - 79th St, Edmonton, Alberta, Canada T6A 3G1
Ph 780-465-4960 rifetube@telus.net

1 straight 18" argon/neon tube w/pressure of 7 Torr + internal electrodes
\$169

Shipping to USA address: \$25 mail, \$38 FedEx

Total \$323 w/o shipping costs

Construction Notes:

The arrangement of the ballast resistors in the schematic and drawing differ but electrically it doesn't make a difference. Also in the schematic, the pots for the 555 frequency circuit are a 250K, 25K, and 1K. In the parts list and drawing, the pots are 250K, 25K, 2K, and 250 ohm which give you more sensitivity in adjusting the frequency when it is high.

Instead of the digital display you can connect to a good frequency meter (connected from collector of 2907 to ground). I have a BK 390 (#BK390A-ND \$167 from <http://www.digikey.com>) which is actually a multimeter. It's so sensitive that it's leads can just be laying on the table next to the coil and it will read the correct frequency. If you use the listed digital display then connect ground to DP1 DP2 DP3 MS3 LATCH Vss. Connect +5v to LSC PGM INHIBIT RST MS1 MS2 MS4 Vdd. Connect the output from the 2907 transistor to CNT. You'll know which pins these all are by the sheet that comes with the display. The 22,000uf capacitor is loose outside of the electronics box since it's so big. The ballast resistors and potentiometer (under the tube on the schematic) are loose outside of the electronics box. You can build a wooden box to hold the tube, or you can let the spark plug and tube hang off the side of the table where you put the unit (which is what I do). It's a good idea to keep the box away from the tube and ignition coil (at least 8 inches) in order to keep the internal electronics away from the strong electromagnetic field that might affect operation. Hand and foot electrodes can be cotton wash clothes that are wetted with water. I find this arrangement is less likely to shock you than metal. Also metal electrodes leech metal into your skin with electricity. Put electrical tape around both ends of the spark plug to lessen possibility of shock since there is where the highest voltages are. For the wires that connect to the electrodes I used radio Shack alligator clip wires that are almost 3 feet long. The desolder braid can even be wrapped around the very first part of the tube to get a little bit more juice. At least 5 turns is good. Connect it to the tube with electrical tape. The tube doesn't get hot enough to melt it. Use the heat shrink tubing to cover both of the tube connections to lessen possibilities of accidental shock. Connection to the output of the ignition coil can be had with the correct ignition cable or you can just bend a piece of coat-hanger

wire into a J shape so that when you insert the bent end into it, the wire will press against the inner cylinder walls and make positive contact with the metal inside there. At least an inch of it should be sticking out of the coil so that you can wrap around it a couple inches of stripped 20 gauge wire. Then tape it all up tight so that it all stays put. The spark plug gap should be set by bending the metal so that it's as close to the center electrode as possible without burning the metal (evident by the spark being orange instead of blue). I adjusted mine by bending the electrode in as far as possible and then running the unit with the orange spark until it burned out (which means it burned off some close metal) and returned to blue. I found that any other adjustment caused it to run 'ratty' which can be heard from the sound of the spark. When running correctly the spark makes a very even sound. When not correct, the spark sounds inconsistent and 'noisy'. The spark plug can also be left out of the design or shorted from one end to the other if you want to experiment with a signal that is without the random high frequencies (probably around 300Khz) that it introduces. Without it the remaining frequencies are 30,000 hertz (introduced by the coil) and the Rife frequency.

Usage Instructions:

Wet both electrodes with tap water. Put both feet on the lower electrode, and hold the other electrode with your hand(s). Don't touch the metal from the alligator clip. Make sure the Run/Set switch is in the 'Set' position and then turn the unit on. Put the Hi/Lo switch in the correct position for the desired frequency and then dial in the desired frequency using the control knobs. Start with the Medium (25K) and Fine (1K) potentiometers in the middle position and start tuning in the generic 1552 frequency or the desired Rife anti-parasite frequencies (see CFL at <http://www.electroherbalism.com>) with the High potentiometer (250K), then the Medium, then the Fine. Turn the 25K/5W potentiometer to the minimum resistance position (for lower voltage at hand electrode). Then flip the switch to 'Run'. Then with one free hand you can adjust the 25K pot so that you lightly feel the electricity. Minimum run times is 3 minutes on each frequency. Repeat the previous steps for each frequency. Drink lots of water and/or eat lots of juicy fruits and eat less animal products (especially dairy). Also drink Echinacea tea. When the detoxification symptoms disappear then you can treat yourself again. When zapping for parasites I myself would also use the main Rife frequencies which are 728, 776, 800, 880, and 1552. Any Rife frequency between 8 and 10,000 hertz can be used on this unit.

Design Considerations:

With the spark plug there is an extra high frequency (probably close to 300Khz) sometimes introduced (usually between Rife frequencies of 500 and 2000 hertz). In my research, I have seen equal results with and without the spark plug. With the spark plug the signal output (going to the body) as seen on an oscilloscope seems to have an additional frequency due to the capacitance effect of the spark plug. Without the spark plug the signal output appears to be the same Rife frequency as is displayed. And you never ever get any ratty output as you sometimes do intermittently when using a spark plug. You can also include a preamp for use with computers utilizing frequency generator software.

This pre-amplifier circuit amplifies the signal (38-10,000 hz) that comes out of a PC or laptop that is run by frequency generator software which is super handy to have when you use the EMEM2 very much because it saves so much time and effort by not having to dial in every frequency. For computer-only use, the 555 timer circuit (see main schematic) can be left out. With the 555 circuit left in, its frequency is sent to the 357 (labeled 2021) via the 3.5mm jack when nothing is plugged into the jack. When the computer audio output cable (3.5mm male to 3.5mm male) is plugged in, then the 555 output completely disconnects. An optional switch can be installed with its center post connected to the bottom of the 4.7K base resistor of the 2907 transistor, and one side post connected to the 4148's positive side, and the other side post connected to pin 3 of the 555. This switch can be labeled "PC" and "555" since it selects the frequency source for the transistors. Don't forget to also install the 3.3K resistor to the base/emitter of the 2907. With a computer-only version, the digital frequency display is optional but nice to also have because it will display the true frequency when the computer outputs a frequency that is only close to what you want. (For example; this software outputs 726 instead of 727). On frequencies less than 60hz from the computer the display may read higher due to a ragged trailing edge on the signal. The Rife Frequency Generator computer program costs \$40 on-line from <http://www.noriftrife.com/generator.asp> which is very adept. Your computer must have a 3.5mm headphone jack which allows you to hear (via headphones) the modem phone line 'talk' when getting on-line. Most newer laptops have a headphone jack with this capability. So with either type of computer, if you can plug into the headphone jack and hear the modem sounds then you can make use of the software/PreAmp combo.

PreAmp PARTS LIST:

Mouser Electronics

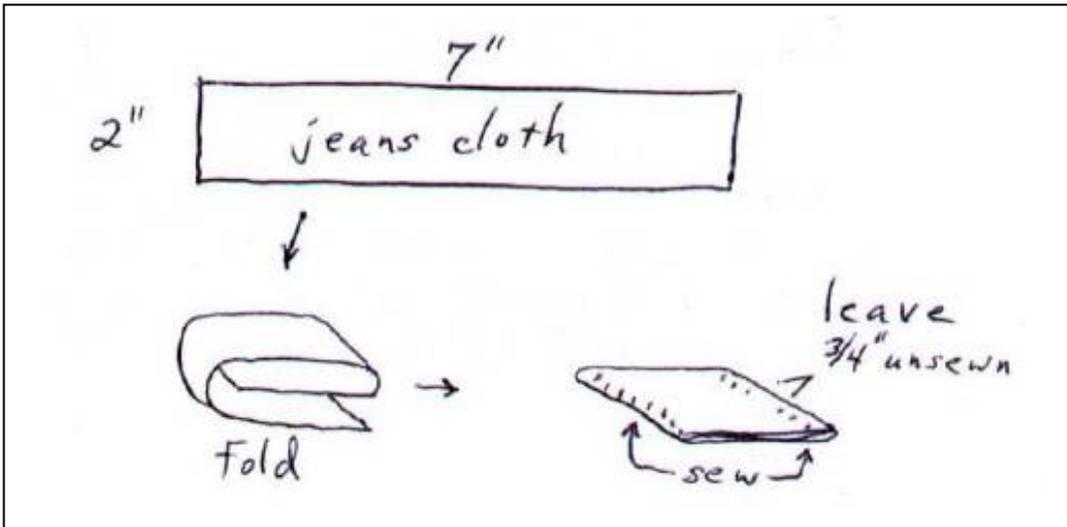
Qty	Part Description	#	Cost
1	357 IC	595-TLE2021CD	\$1.08
1	15M resistor	291-15M-RC	.09
1	3.5mm female jack	16PJ137	.26
2	3.5mm male plug	17PP103	1.46
1	3.3K resistor	30BJ250-3.3K	.22
1	22K resistor	30BJ250-22K	.22
1	39K resistor	30BJ250-39K	.22
2	47K resistor	30BJ250-47K	.44
1	2.2M resistor	30BJ250-2.2M	.22
1	8 pin IC socket	517-ICO-083-38-T	.16
1	4148 diode	78-1N4148	.03

\$4.40

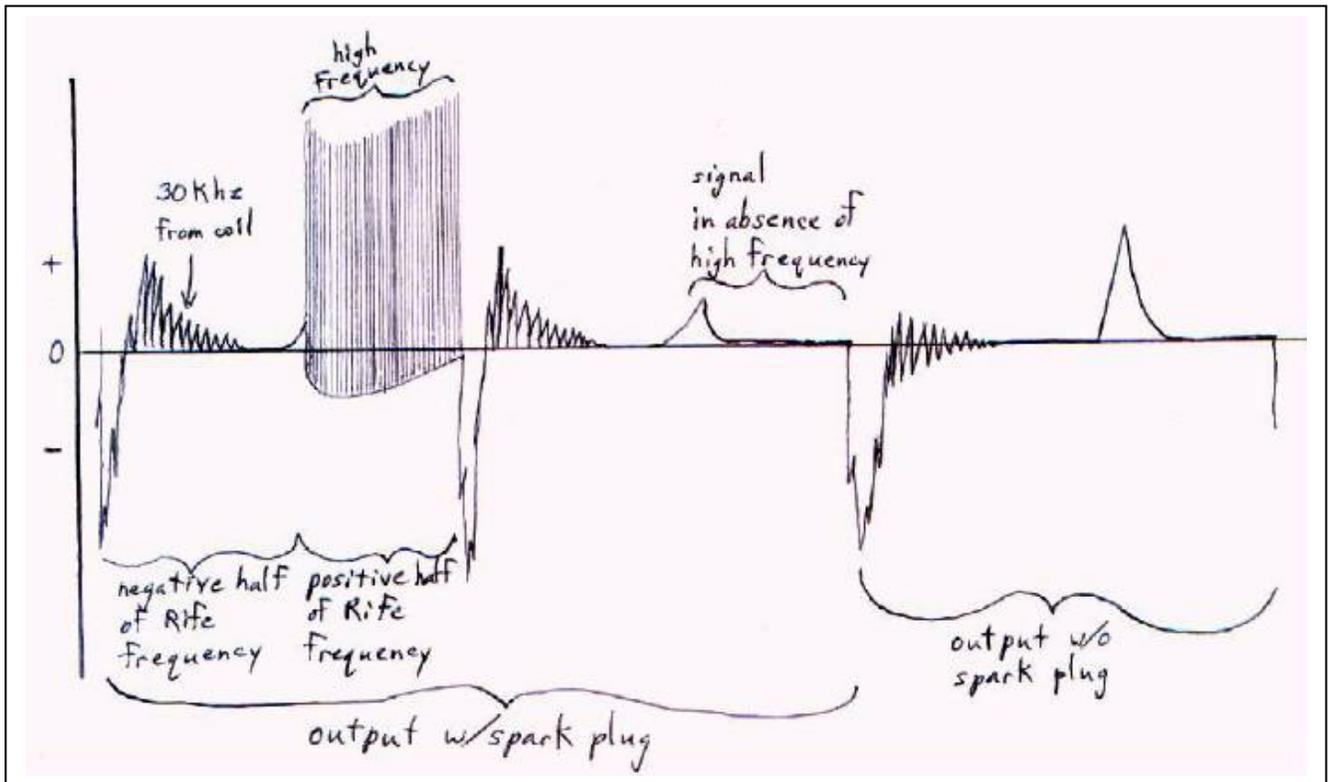
Digikey

Qty	Part Description	#	Cost
1	2.2uf capacitor	399-1387-ND	\$.48

\$.48



How to make cloth pad electrodes



EMEM2 output waveform with and without spark plug