## The ION Bombardment Experiment

Ions, simply put, are molecules that have “acquired” or “shed” an electrical charge. They are created naturally as air molecules that break apart due to sunlight, radiation, or moving air or water. It is possible to “feel” the power of negative ions by walking on a surf pounded beach or standing beneath a waterfall. The air circulating in the mountains and the beach is said to contain tens of thousands of negative ions, way more than the average home or office building, which contain dozens or hundreds, or perhaps none.

The benefits of negative ions on the human body have been well researched, and these findings have recently been reinforced by ion researcher Michael Terman, PhD, of Columbia University in New York.

Generally speaking, negative ions increase the flow of oxygen to the brain, resulting in higher alertness, decreased drowsiness, and more mental energy. This research has been reinforced by Pierce J. Howard, PhD, author of *The Owners Manual for the Brain: Everyday Applications from Mind Brain Research* and director of research at the Center for Applied Cognitive Sciences in Charlotte, N.C.

One in three human beings are sensitive the effects of negative ions. Negative ions can make us feel like we are walking on air. If, for example, you feel instantly refreshed the moment you open a window and breathe in fresh, humid air then you can count your self in that magic one third of the population. If you feel sleepy when you are around an air-conditioner, but feel immediately refreshed and invigorated when you step outside or roll down the car window, then you are definitely sensitive to negative ionic effects. It is well known that air conditioning depletes the atmosphere of negative ions. This is most likely why there is a boom in the sales of ion generators as they generate the ions that air conditioners remove. The question is, since we believe that ion count is affected by paranormal activity, we needed to determine if it was a contributing source of the activity, or caused by the activity. Again, we would need to monitor the injection of negative ions into the air at a reported active location

Positive Ions

When one or more electrons are ripped away from an atom, the remaining atom becomes positively charged and is called a positive ion. Positive ions are responsible for the majority of the energy and electrical current in the magnetosphere, as well as the main component of both the inner and the outer radiation belts. Fast ions are also produced by the Sun as a continuous outflow in all directions, known better as solar wind, which is the cause and the fuel of magnetic storms and similar phenomena. Positive ions have been associated with ill health. Is thee any truth to this? Let’s look at some scientific studies from www.djclarke.co.uk

- Scientists at the University of California grew barley, oats lettuce and peas in an atmosphere drastically reduced in ionization and found that growth was stunted and the plants diseased. When the experiment was repeated in air carrying more than double the normal number of negative ions, it produced accelerated growth.
- In Russia, scientists tried to raise small animals - mice, rats, guinea pigs, rabbits - in air with no ions at all. They all died within a few days.
- Dr Felix Sulman, head of the Applied Pharmacology department at Jerusalem University, conducted experiments with positive and negative ions on a cross-section of people. (his subjects were two groups of men and women between twenty and sixty-five) When left for about an hour in a room that contained an overdose of positive ions they became irritable and fatigued. Yet the same people confined for the same period of time, in air containing an overdose of negative ions, showed a pattern of brainwaves that suggested increased alertness and relaxation. He tested their alertness and work capacity by various means. All of them scored significantly higher, during and immediately after, their exposure to increased levels of negative ions.
- Dr Sulman also undertook a study of "weather sensitive" volunteers and showed that, during the time of the Sharav winds, their bodies would produce up to ten times their normal level of serotonin - a hormone associated with stress. He found that, in effect, they were being poisoned by their own serotonin, causing migraines, hot flushes, irritability, pains around the heart, difficulty in breathing and a worsening of bronchial complaints, anxiety and irrational tension. Also a slowing of reactions was observed. Interestingly, it was discovered that in many people, the body's initial response to positive ions is to produce adrenaline and noradrenaline - the "fight or flight" hormones - which produces short-term euphoria but eventually leads to a condition of exhaustion. (It is this condition that is thought to affect insects and animals into restless activity as the positive ions build up before a storm.) The research also showed that exposure to positive ions can trigger an over-production of histamine, which most people will immediately recognise as the body chemical that aggravates allergies. Statistically it was found that 25% of the population are quite strongly affected by levels of ions in the air. Of the remainder, 50% are affected considerably, although 25% do not appear sensitive at all.
- A great deal of research was also carried out by Dr. Albert Krueger in California - One of his first discoveries was that a surprisingly small amount of negative ions could kill and take out of the air, the types of bacteria that cause colds, influenza and respiratory infections. He then went on to keep large groups of mice in various concentrations of ions, some positive, some negative and some in normal balance. In 1960 a scientific paper was published on the results. The conclusions were almost identical to those of Dr. Sulman. An excess of positive ions led to overproduction of serotonin which initially created hyperactivity, leading to exhaustion, anxiety and depression. He also found that an excess of negative ions appeared to have a calming effect, and a reducing of serotonin levels in the brain. (Negative ions were actually substituted for a pharmaceutical tranquiliser on one occasion - with identical results). The series of experiments were then extended to include rats, guinea pigs and rabbits as well as insects and plants. The results consistently supported the original findings. On one occasion, mice were kept in a sealed container until the oxygen was almost used up and they were on the verge of suffocation. The remaining air was negatively ionized - and the mice revived!
- In a major 16-week trial conducted by Surrey University at the Norwich Union Insurance Group's headquarters, eight negative ion generators were fitted in the computer and data preparation section, the typing area and the motor underwriting department. Before the tests got under way, the University team spent a month compiling incidence rates of complaints of sickness and headaches. The experiments were "double- blind"-so that neither the staff nor the researchers knew whether the ionizers were on or off at any given time. The most dramatic results were in the air-conditioned areas, the incidence of headaches in the computer room being reduced by 78 per cent during the midnight to 08.30 shift. Norwich Union was sufficiently convinced to decide to keep the ionizers, and order another ten ceiling-mounted models, giving them 20,000 sq ft of ionized office space
- Part of Surrey University's experiments concerned concentration ability and the studies showed that negative ionization could improve task performance by as much as 28 per cent. In general, the more difficult the task, the more improvement could be accomplished by negative ions.
- At the University of Pennsylvania's Graduate Hospital and at Northeastern and Frankford hospitals in Philadelphia. Dr. Kornblueh and his associates administered negative ion treatments to hundreds of patients suffering from hay fever or bronchial asthma. Of the total, 63 percent experienced partial to total relief.

- Effective Pain-Killer. In Philadelphia Dr. Kornblueh studied brain-wave patterns and found evidence that negative ions tranquilised persons in severe pain. Burn cases at Northeastern were immediately put in a windowless, ion-conditioned room. In ten minutes, usually, the pain was gone. Morphine, customarily administered in such cases, was never necessary. Patients were left in the room for 30 minutes with the treatment repeated three times every 14 hours. In 85 percent of the cases no pain-deadening narcotics were needed. Northeastern's Dr. Robert McGowan reported "Negative ions make burns dry out faster and heal faster with less scarring."
- Following this success in burn therapy, Dr. Kornblueh, Dr. J.R. Minehart, Northeastern's chief surgeon, and his associate Dr. T.A. David tried negative ions in relief of deep, post-operative pain. During an eight-month test period they exposed 138 patients to negative ions on the first and second days after surgery. Dr. Kornblueh announced the results at a London congress of bioclimatologists: In 79 cases (57 per-cent of the total), negative ions eliminated or drastically reduced pain.
- Experiments by Dr. Albert P. Krueger and Dr. Richard F Smith at the University of California have shown how ionization affects those sensitive to air-borne allergens: Our bronchial tubes and trachea, or windpipe, are lined with tiny hair filaments called cilia. The cilia normally maintain a whip-like motion of about 900 beats a minute. Together with mucus, they keep our air passages free of dust and pollen. Krueger and Smith exposed tracheal tissue to negative ions and found the ciliary beat was speeded up to 12OO a minute and that mucus flow was increased. Doses of positive ions produced the opposite effect: The ciliary beat slowed to 6OO a minute or less and the flow of mucus dropped.
- Doctor's Krueger and Smith also discovered that cigarette smoke slows down the cilia, impairing their ability to clear foreign, and possibly carcinogenic (cancer-inducing), substances from the lungs. While positive ions worsened this condition, negative ions were found to reverse the effects of the smoke.

Ok, so there seems to be a significant number of studies that have associated negative ions as being good for us and positive ions bad for us. The question is, which are best for paranormal phenomena? Is the ion count a precursor to the manifestation of paranormal activity, or is it a product of it? What is the source of these ions, and how does the ration of positive and negative change and affect the phenomena? We have designed an experiment to attempt to find out.

Prior to an investigation, when the site is inactive, the area to be investigated should have several Air ionization units running at full power. Negative ionization of the air removes most of the particulate matter that floats in the air. Under normal conditions, dust and other particles are suspended in the air by the normal convective air currents present in the room. By running the ionizers and keeping the windows closed, you will effectively remove any dust from the air. This will eliminate the photographing of false orbs. This also dramatically increases the Negative ion count in the room, and alters the ratio of negative and positive ions present. This should be standard operating procedure before any investigation.

Because we want to determine the effects of Negative and positive ions, generators or both are required for the experiment. The path we have chosen is to purchase two ion generating kits from Hobbytron Inc.

http://www.hobbytron.com/product1432.html

The cost is 14.95 each, they have to be built, and placed in an enclosure that does not come with the circuit board. However, the device can be built to

produce positive or negative ions, depending on the configuration of the diodes. For control purposes, we wanted to produce the exact amount of each type for the experiment.

Once the room has been swept of dust by the purifiers, air sampling should be taken. Note the ion counts, both positive and negative. Energize the positive ion generator and begin taking your readings, and not any paranormal phenomena that takes place. After an hour, Switch to the positive ion generator and note any activity. By repeating the procedure over a period of time, we should be able to determine the influence artificially generated ion counts have on paranormal activity.

I received the two ion generator kits from Hobbytron. I looked them over and checked out the instruction sheet and will begin construction on Monday. The devices are going to work rather nicely and they will be small, facilitating their use on an investigation. The kits are bare bones, in that they have no power cord or enclosure. I will have to design something that will allow for ion flow but protect from high voltage shock. Should be interesting. The kits require soldering skill to assemble. The type of ions the device generates is dependant on the way the diodes are wired. In one direction the output will be positive. Reversing the positions will derive a negative ion output. According to the instruction sheet, this thing is capable of putting out a very large amount of ion flow, and looking over the schematic, I believe it. There are twelve voltage doubling circuits on the PC board so the output voltage is going to be very high, roughly 491, 520 volts. That’s a spicy meatball!

As for the kits, I would not recommend you buy these kits if you don’t have some experience in assembling electronics. While the plans are pretty straight forward, the testing requires a little knowledge of how not to get the crap shocked out of you. While the voltage is high, the current is very low, so it won’t be a painful experience, but it won’t exactly be a pleasant one either. Unless of course you are into that sort of thing.

So once I assemble and test the generators, we will deploy them at some point at an active site and record the effect of altering the ion levels in the environment. It is my belief that it is possible to enhance the activity by providing more energy available to the phenomena to feed off of. The goal of the experiment is to find out if there is a correlation between ion count and paranormal activity, and to find out what that correlation is with quantifiable data. It may be that in the future we will be able to enhance or possibly create activity by adjusting the environment to create a more conducive atmosphere to manifestations. It may also prove that we can lessen the effects, and possibly even rid the area of activity. It will be an interesting experiment to say the least.

Work has been done in this area by many organizations with varying degrees of success. One such series of experiments comes from the U.P.I.A. (Unknown

Phenomena Investigation Association, and is a report attributed to Richard Jacklin, of Spectral Electronics

http://upia.moonfruit.com/negativeions/4518067665

“In 2003, the Negative ion detector was launched which was specifically designed and manufactured for people and groups interested in the study of paranormal, ghost and phenomena related to the “after-life”. This paper is a summary of the results obtained by the users of this equipment.
The product, which formed the basis of this study, is the Negative Ion detector. Since the launch of the negative ion detector, more than 30 groups and societies have obtained and used the units in a wide range of applications and investigations across the country. Individuals have also used the equipment in applications apart from ghost hunting.”

Selection Reports and Experiences

At Walworth Castle

“…I can say that there has been paranormal activity, because I witnessed this myself when I stayed there last weekend. I stayed in room 17 and set up a NID by the door well away from any electrical device. I also drew around three coins as a trigger object, a copper 2p, a gold £1 coin and silver 10p. In the early hours of the morning the NID beeped twice waking me, and I had a sense that there was someone watching me in the room although I couldn't see anything. When I woke in the morning and checked the coins I found that the 10p had moved halfway out of the drawn circle and there was no apparent reason for the detector to go off. Very interesting!”

Exorcism

“…Before an exorcism the NID was used around the house and on the subject - a signal was noted on and around the person. After the exorcism, no signal was noted, which comforted the person. No detection of that spirit has since been noted in that house or around that person.”

Beaulieu Abbey

“In the Domus at Beaulieu Abbey, I was strapped up to a NID listening to our medium giving her workshop. All of a sudden, without me moving, the NID started to beep. The medium simply said 'Oh, you've found the cat then'. Apparently a spirit of a cat had materialised around the legs of someone sitting a few chairs away and walked towards my chair and sat nearby. The NID stopped beeping and our medium advised that the cat had moved under a table about 4ft away from me. I moved the NID in the area she indicated and the detector went off for about 30 seconds. After this, even though the detector was no longer

picking up the cat, our medium said that it was still under the table. This to me shows that the theory behind NID is true. When energy enters our atmosphere, and a medium sees this, an ESD trail is emitted. When this eventually dissipates the ESD is no longer picked up, however the medium is still able to see the energy."

Vortex

"We placed the unit in between us and we had a couple of medium's open up and low and behold after 5 minutes or so it started to kick off! Just before it did one of the mediums did say that they believed the spirit was walking towards us! We also managed to capture our first "vortex" using this unit!"

Richard's Conclusions

"From my own personal interpretation of the survey results, statistics and reports, I have drawn the following conclusions. I should point out though that it is still early days for these products and of course personal opinions are purely subjective.

The overall objective for Spectral Electronics in helping paranormal investigators is to qualify" unusual activity and understand more about what one sees, hears, feels or can be detected by scientific instruments.

A surprise for me in the study was the high proportion of users who work with mediums / clairvoyant or who are indeed mediums themselves. A common theme throughout the experiences described in this report and others in the survey were the announcement of a spirit by the medium and then the immediate "detection" by the equipment."

Eliminating fake orbs!!

"Negative ionization of the air does a superb job of eliminating most tiny particles that float in the air. They are normally suspended in the air (even when the air in the room seems calm) just by the normal convective air currents. You've seen particles of dust floating in a beam of sunlight shining in the window, haven't you? Well, when a high-density negative ionizer is in operation in the room, you see very little (if any) of that. That is the reason they can help people with allergies: they help remove dust, pollen, mould spores, and other allergens from the air. Of course, if you have a window open on a windy day and the pollen is blowing in, no negative ionizer will clear the air quickly enough to help anyone.

How does this work?

Ionized room air does not have to pass through a filter or be circulated by a fan to be cleaned. The negative ions generated by the ionizer unit, cause dust, pollen, mould spores, pet dander, to clump together and drop out of the air. In a filter-

type purifier with a fan or blower, only the air that goes through the filter can be cleaned. And even then, the tiniest particles still can flow through the filter. These tiny particulates can be better removed by ionization than filtering.
How does this help eliminate orb's captured on film??

When pictures have been analyzed, a high percentage of orbs captured on film are usually down to dust contamination. When a picture has been taken using a camera, the field of focus has been set on a particular object. Any tiny dust particles that pass in front of the lens when the picture is taken (particularly when a flash is used) will be captured, and an out of focus image will appear on the film, appearing to look as an ORB!

Being able to remove as many dust particles from the air as possible will greatly reduce the possibility of dust contamination in any picture taken.

Thus eliminating yet another known fact, from the ever searching truth behind the world of the Paranormal."

And the conclusion:

"Further testing on the relationship between negative ions and the paranormal, is still being carried out between various paranormal teams.

But you must admit there have been some interesting facts here about negative ions and there role in the Paranormal."

Paul Reeves
UPIA Co-Ordinator.

Well Paul, we couldn't agree with you more!

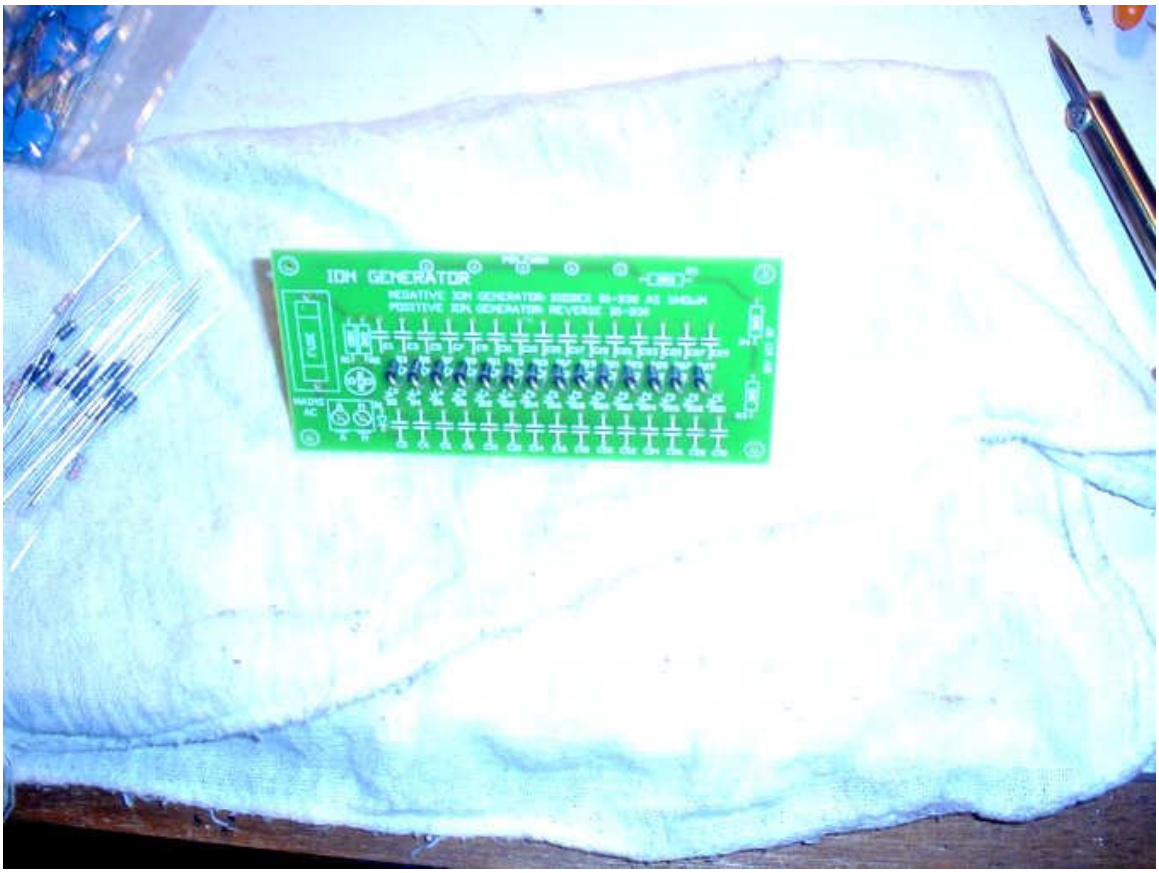
Let's build the generator kits.

The kits arrived from Hobbytron packaged nicely, and I was surprised to see how small the kits really were.


But really, all the kit is are the components and a circuit board. You will have to find an enclosure, a way to mount the board to the enclosure, and a power cord. I removed the kits from the shipping box and laid them out to familiarize myself with the components. I also realized that the soldering was going to be a bit tedious for my old eyes as the board is very compact.

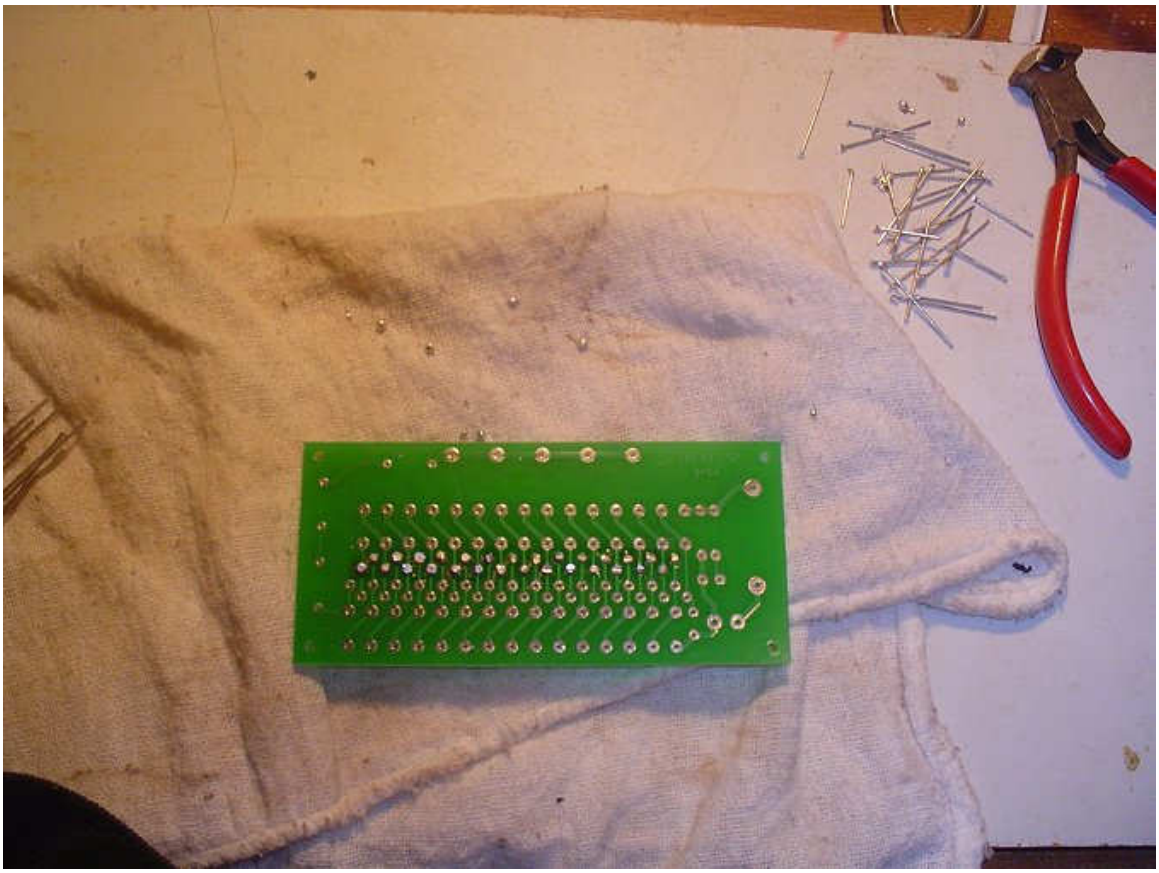

The kit also includes a fuse holder and fuse, a neon indicator lamp, and directions.


Having a clean, well lit work area is desirable. I like to use a mechanic's cloth to assemble on, to keep the parts from rolling around and getting away from me. It is also nice to lay out the parts for easy selection. I am holding a diode here, and I want to tell you, you should have a good working understanding of electronics assembly to build one of these kits. The Coca Cola is optional.

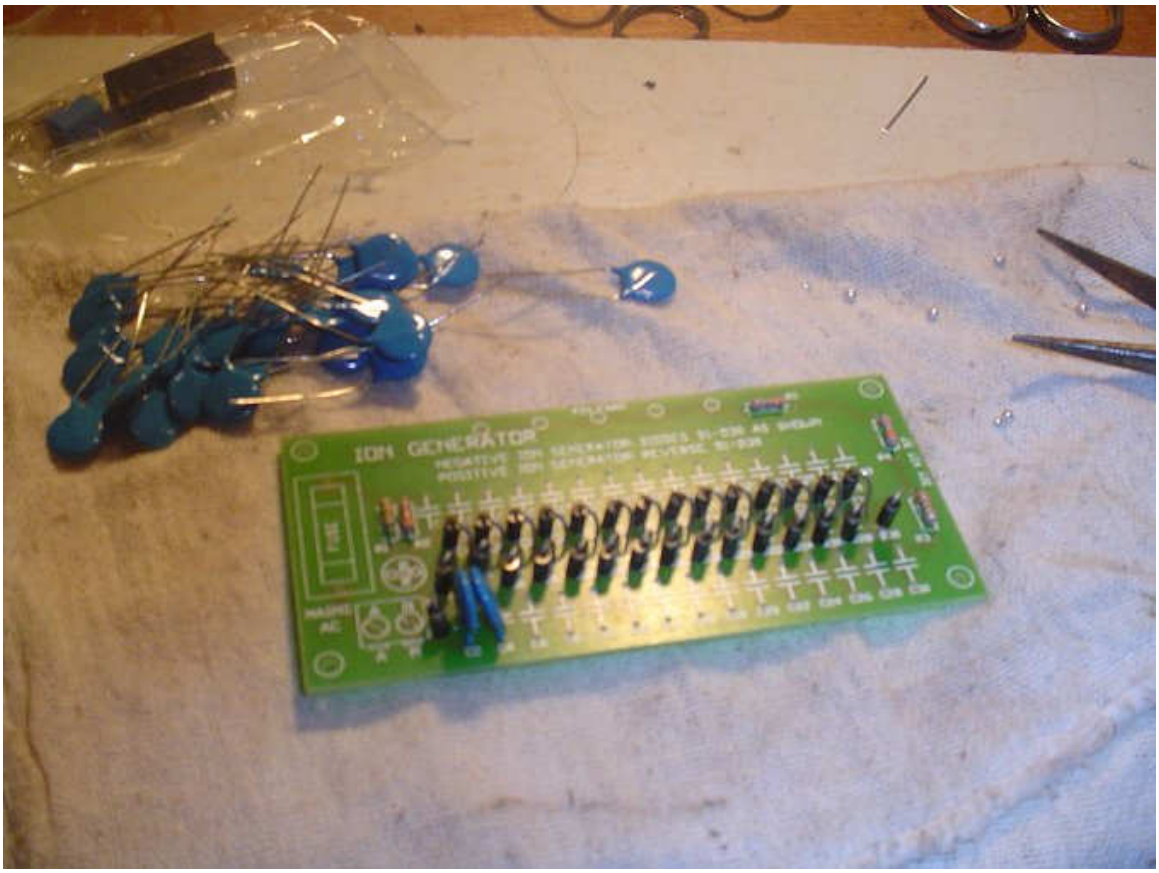



Here is the board after I mounted the first half of the diodes. This is the positive version of the ion generator with the diodes mounted in backwards.

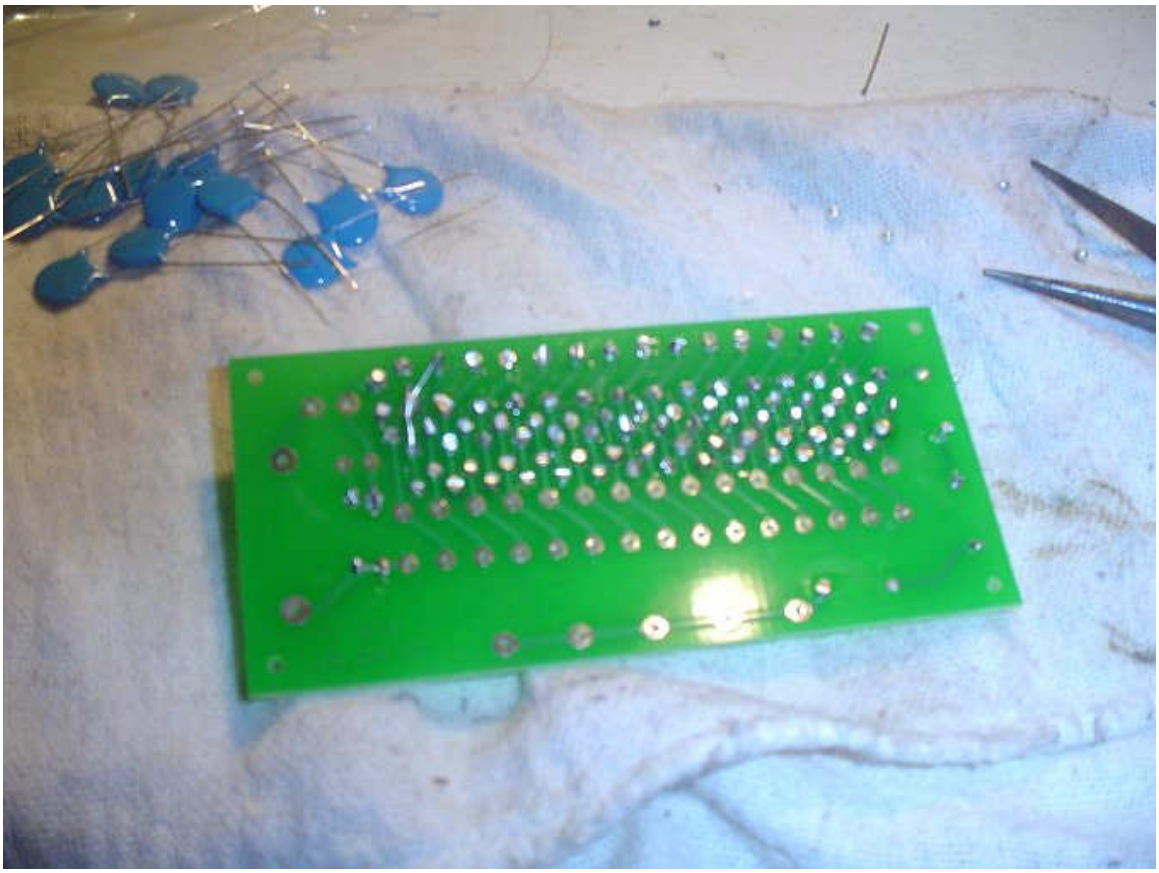
The soldering was tedious. I chose to only do a single row of components at a time to make the job a little easier.



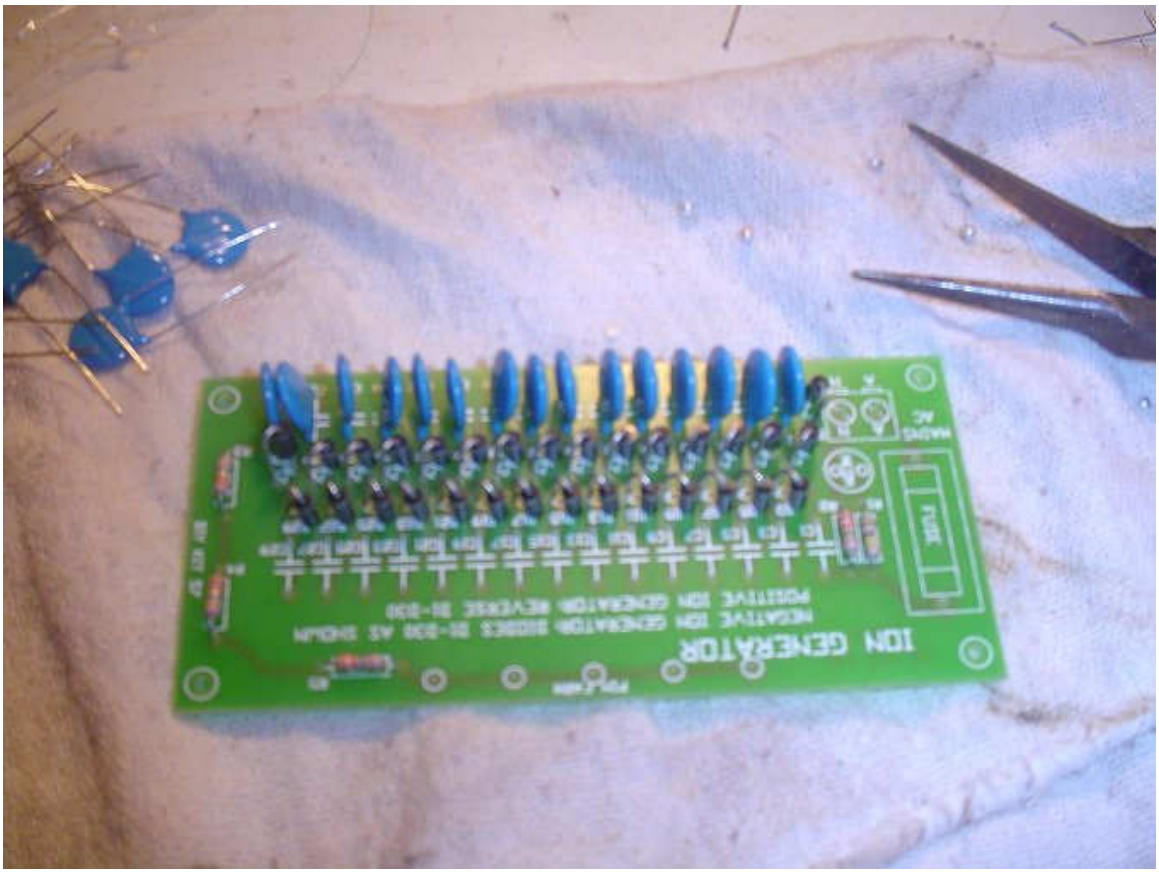
Care must also be taken with trimming the solder connections. You should have no wire points protruding from the solder. Ions will leak off the board from any sharp point.



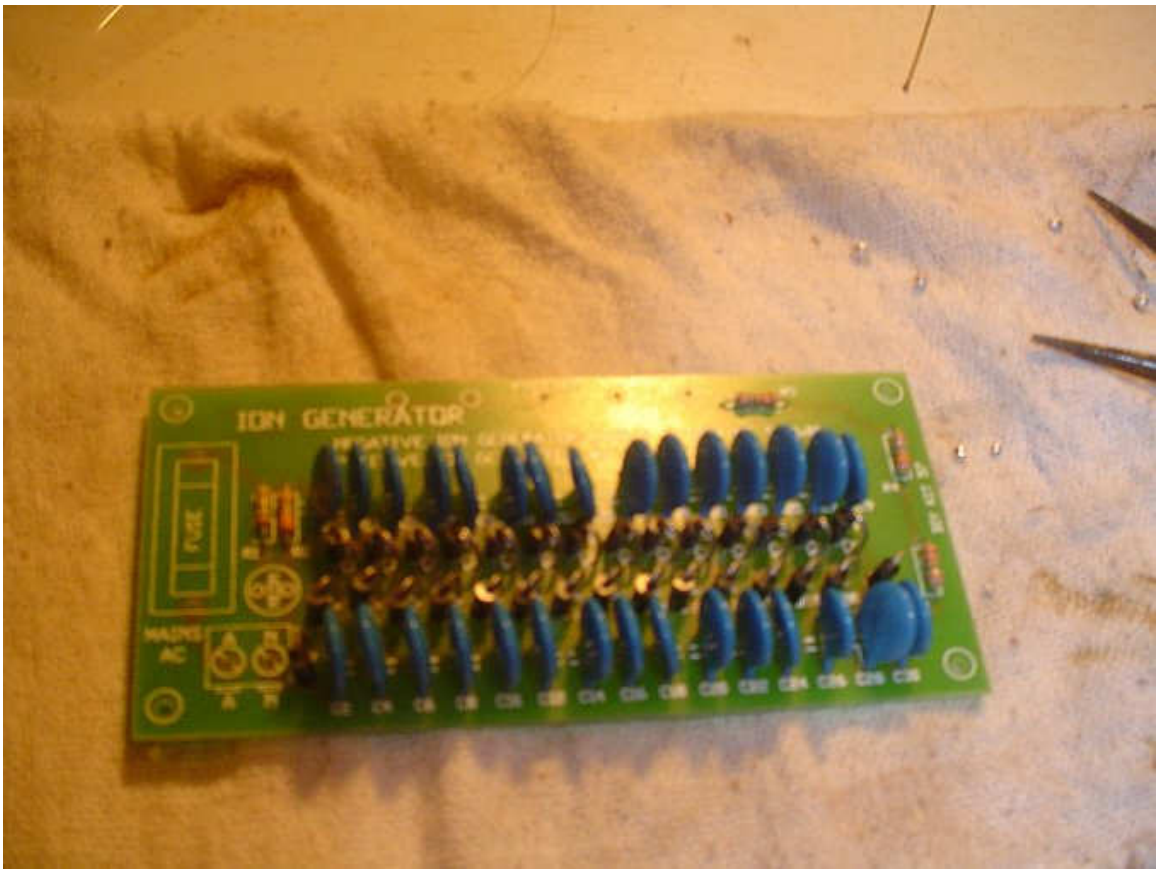

After completing the diode installation, I began with the first row of capacitors. I had to finds a happy medium between speed and ease of soldering, so I limited this stage to two at a time to solder. Others may be able to do more than this, but I was in no big hurry.



Care must also be taken in not applying too much heat to a connection on the board. I did that, and was rewarded by the foil peeling off the board much to my horror. I had to do am improvised fix to restore the circuit path. The component leads worked well for this type of repair.

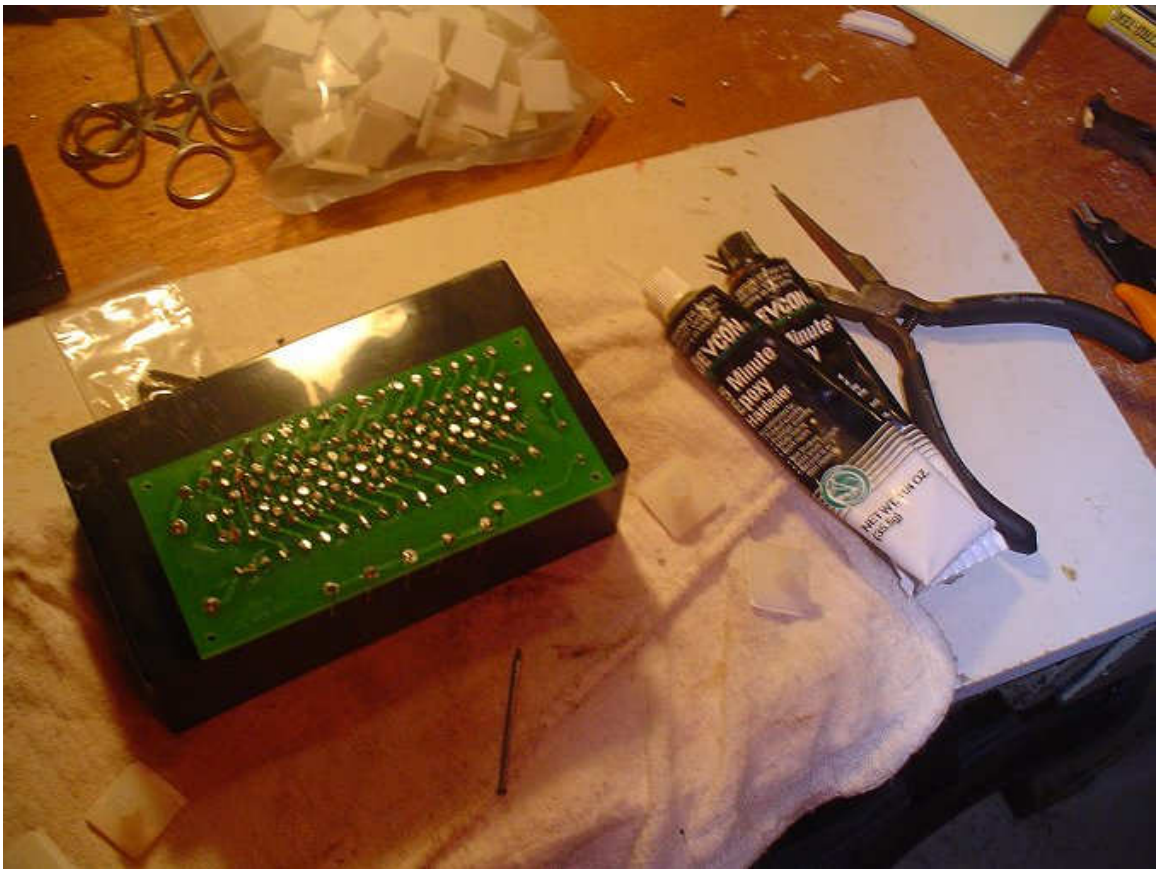



Finally, after repairing the board, I finished installing the first row of capacitors. I added the resistors, and was now prepared for the final capacitor row.




The board is nearly ready. All remaining to mount is the fuse holder, the neon indicator lamp and the power terminal.

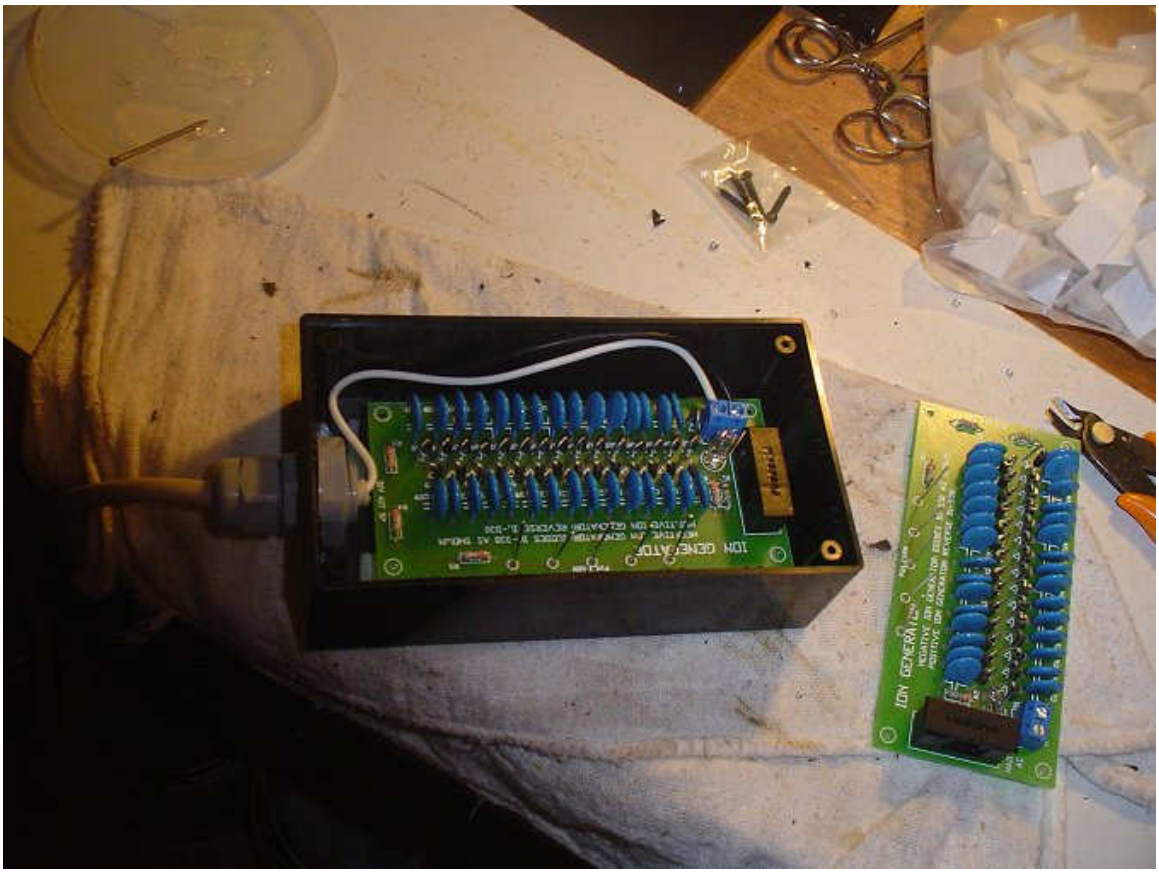
Once the boards were complete, there remained the problem of finding a suitable enclosure. Since the pin farm (shown on the left of the board above) had to be exposed to the air in order to emit ions into the environment. Since I couldn't find a ready made box I would need to find a box that I could easily modify. I chose a BUD Industries model CU – 1874 – B, due to its deep part and it's shallow lid. The lid will have to be cut to allow ion flow, so plastic is the material of choice for ease of cutting.



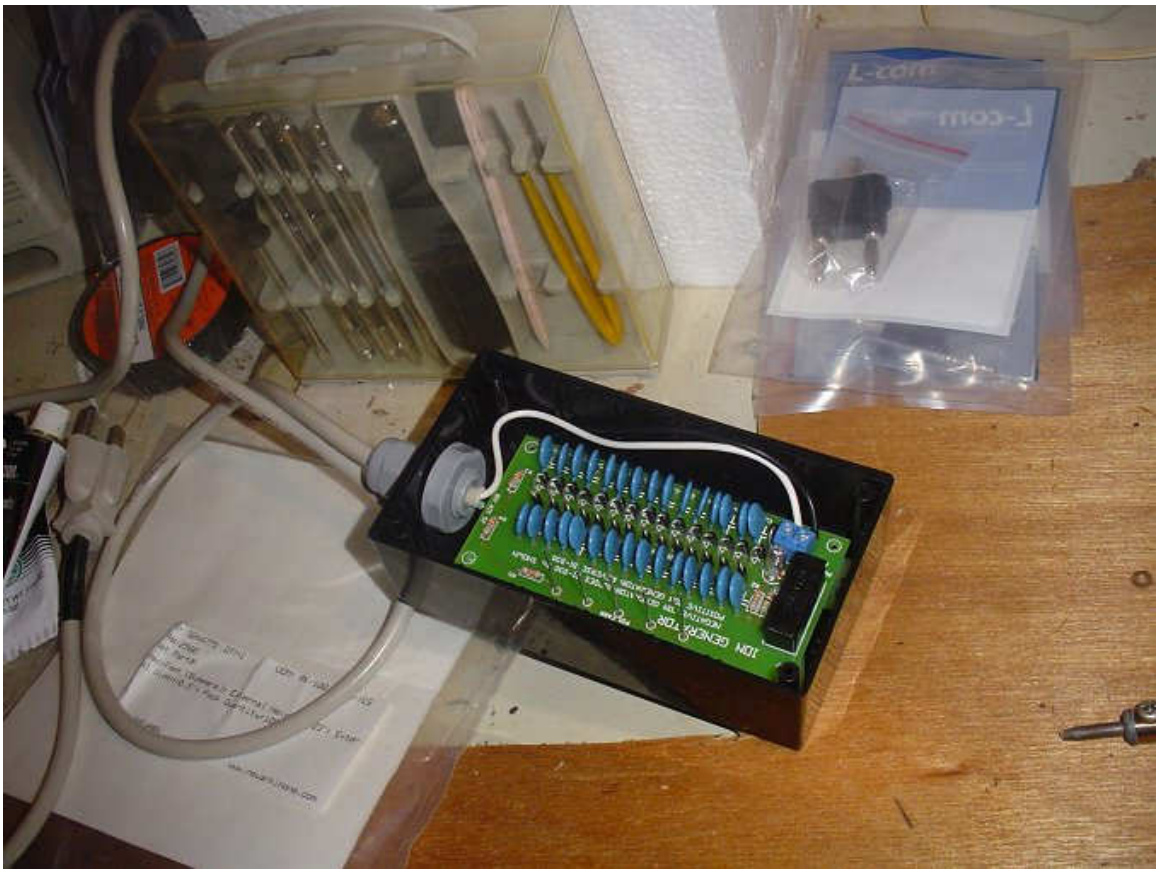

The next issue to deal with was mounting the board. Since ions flow along the conductive runs of the board, you can not just lay it on the surface of the box. If you do, you will attenuate the ion flow significantly. I chose some self adhesive legs and cut off the preasure pins as they were too big for the board mounting holes. Five Minute Epoxy held them securely in place. Hint, let the epoxy set over night.

Here we have both boards with the legs mounted. The legs have a peel off paper cover that protects the adhesive. In the background is one of the electrical cords I chose from a box of old cords I keep under the work bench for just such a project as this. In the foreground is my Epoxy mixing tray and my customized applicator (a nail)

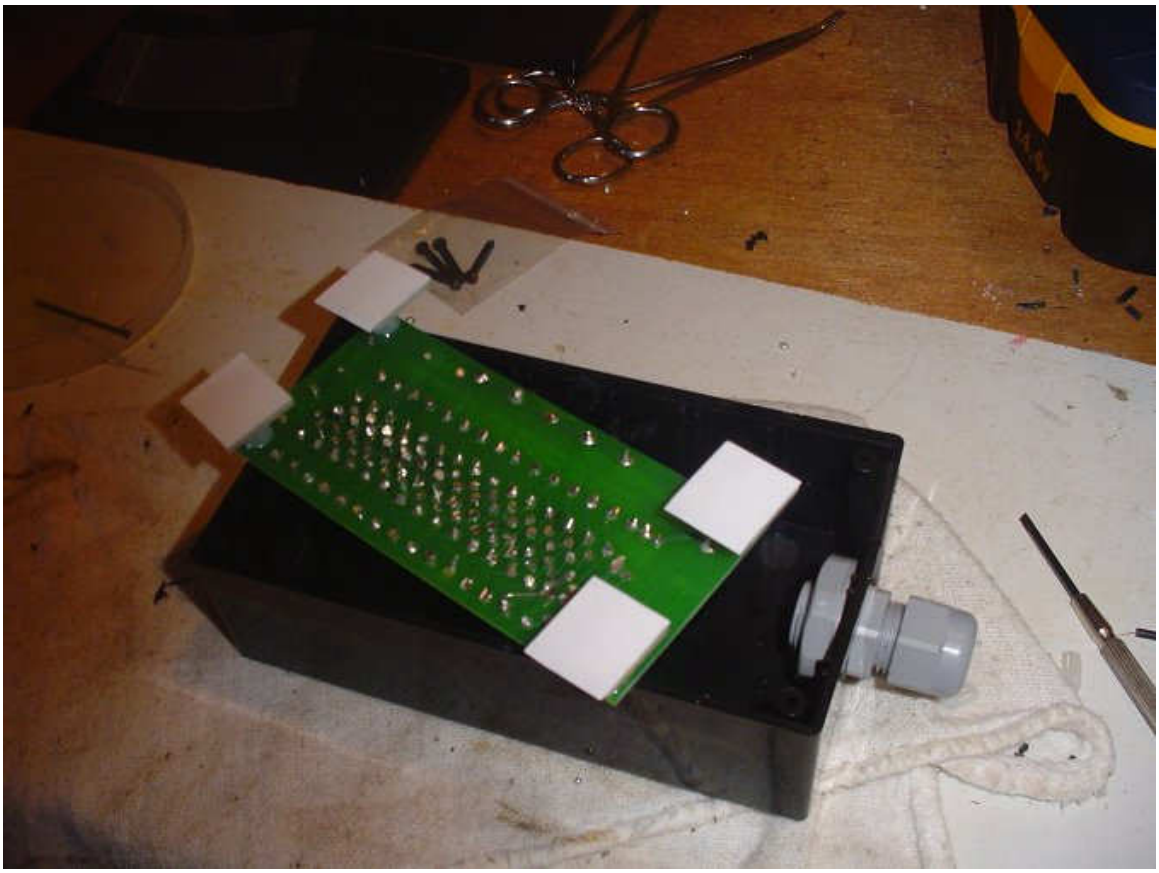
I also had some fancy threaded plastic strain relief’s I wanted to use. Unfortunately this required drilling a sizable hole to mount. Be sure to use a vise to hold the boxes in place when you drill or the box could break away and injure your hands or bean you on the head.



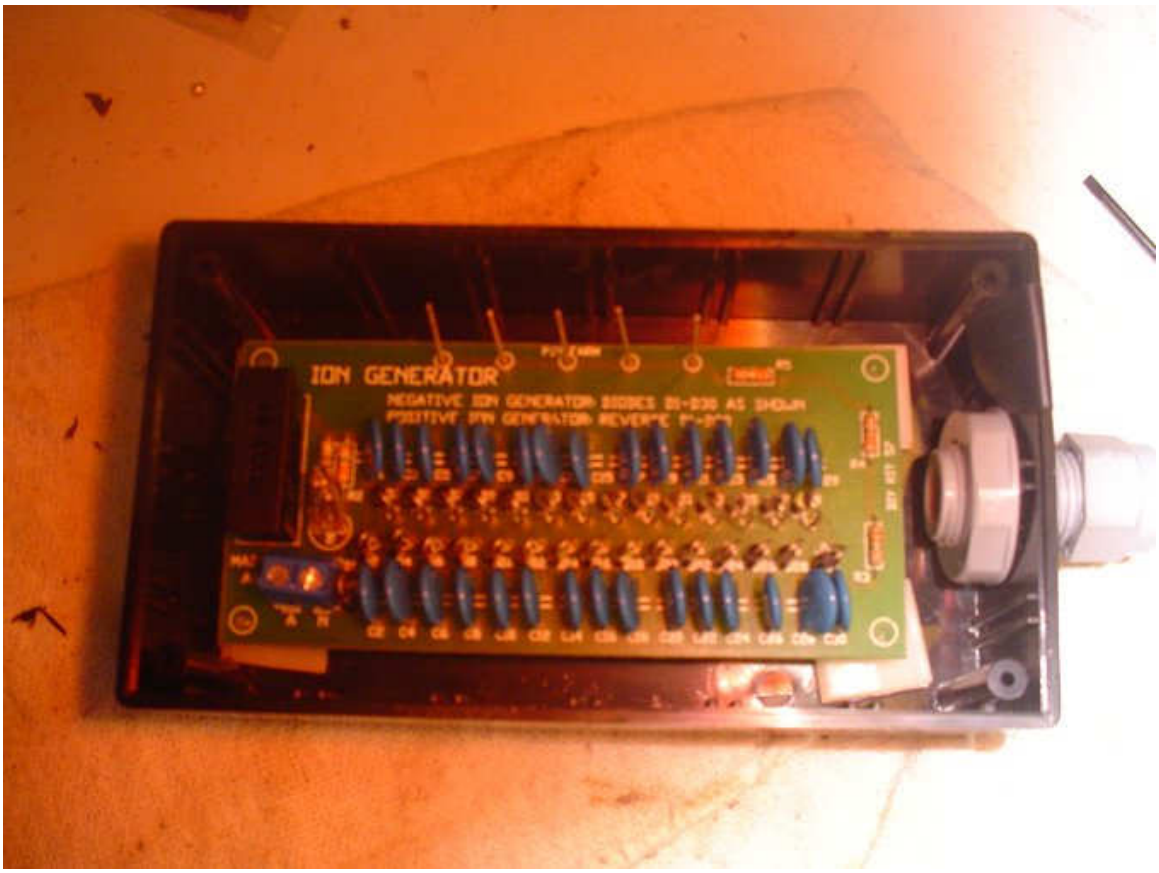

Now we are starting to look like something. This is the Negative generator mounted in the box, with strain relief and power cord in place



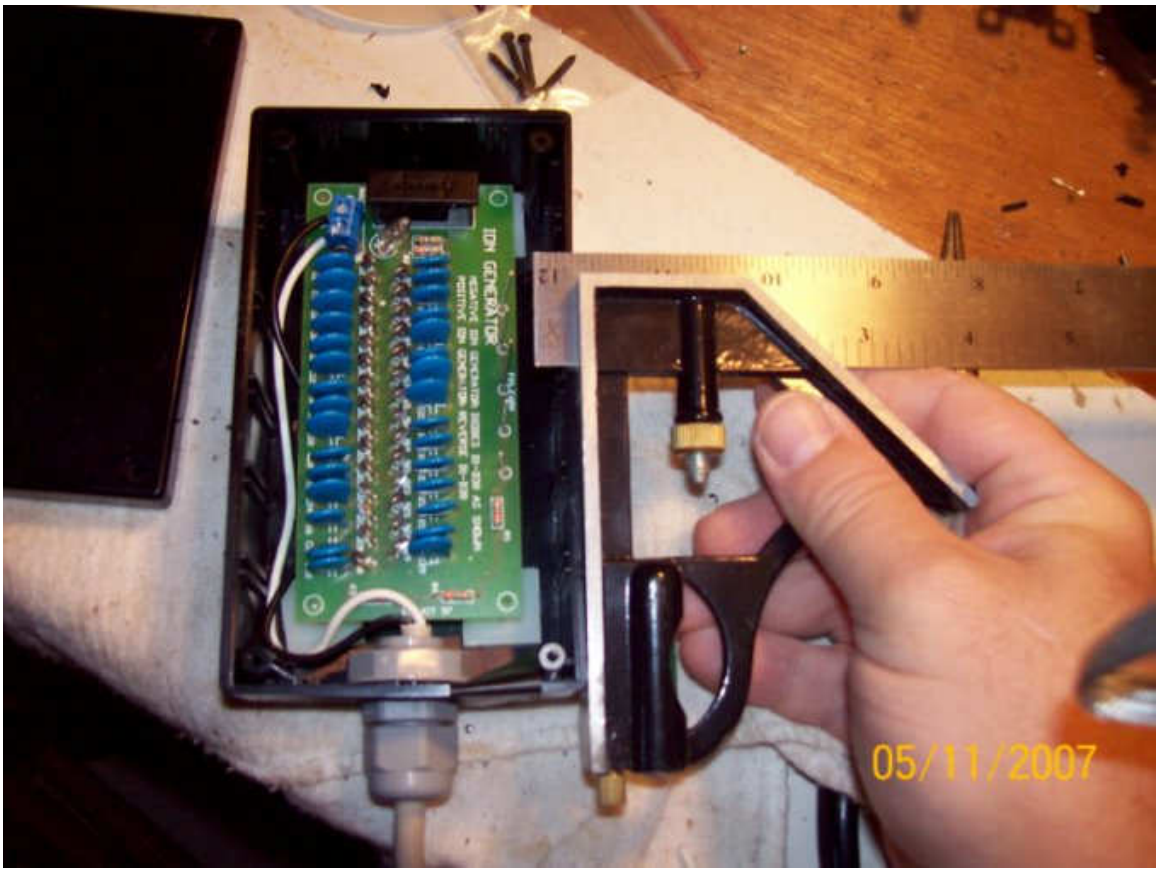
As you can see, the constructed device is neat and surprisingly professional looking. Maybe I should market these assembled? Naw….



Here I am readying the positive generator for mounting. Be sure to mount the fuse opposite the strain relief, as otherwise it won’t clear the relief when you try to mount the board.




The positive generator waiting for the power cord. Now we are ready to modify the covers for the pin farm, and plug them in for a test.




The first step is to determine how far in to make your opening. You want good ion flow, but you also want maximum protection.


Next mark out your opening with a straight edge and a white china marker.


I decided to use a dremil type tool with a cut off disc to make my cuts. A heated knife edge will work also, but it takes more time and care.


I finished off the cut by using a small grinding wheel attachment. Once you are finished you can throw it away as it will be uselessly covered with melted plastic.


The end result should look something akin to this. I used a small set of wire cutters to remove excess slag from the cut.


Now you can attached the cover to the box and plug it in for testing. If you don’t have an ion counter, you can place your hands just above the pin farm opening and if it is working correctly you will be able to detect the ion flow.


After testing you can label the device and add it to your arsenal.

I hope this article has been of some help to those of you who wish to experiment with ion levels and their affects on paranormal phenomena. If you have any questions, please feel free to write.

David Rountree