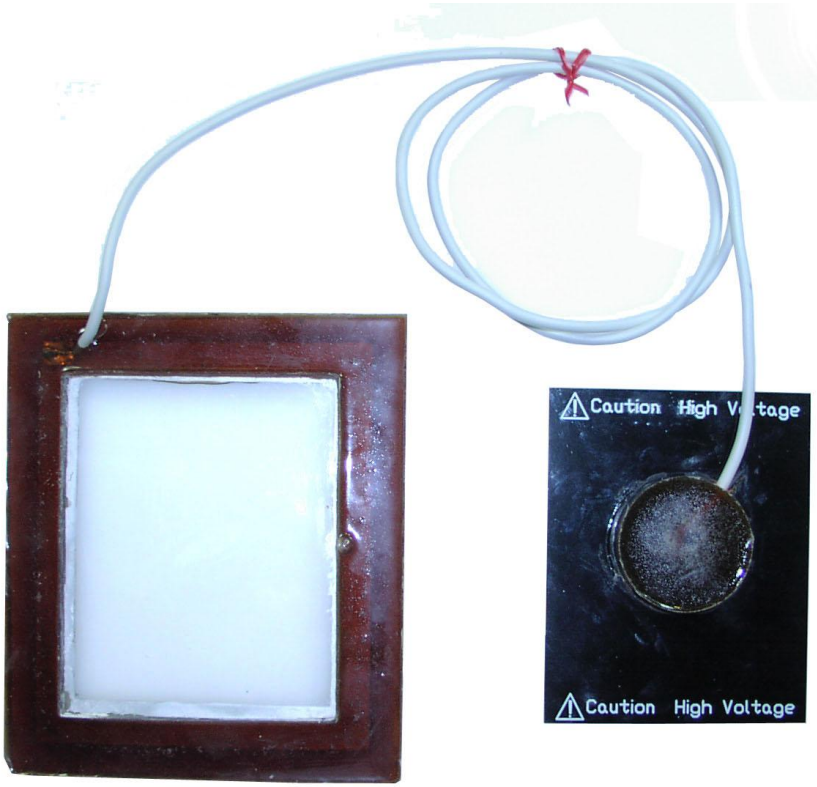
TRANSPARENT DISCHARGE PLATE for KIRLIAN PHOTOGRAPHY DEVICE



Safety Precautions

Read This First

Warning: Kirlian devices are very high voltage contact print photography devices. All high voltage devices are potentially dangerous and must be operated with extreme caution.

Disclaimer: Images SI Inc. or its affiliates assume no responsibility for damages consequential or inconsequential or incidental for the use or misuse of the transparent discharge plate. Images makes no warranties, expressed or implied to the fitness of this device for any particular purpose.

Safety Precautions

A) This equipment should not be used by children or anyone not familiar with normal safety precautions to be used around electrical equipment.

B) Use a pair of glass lensed sunglasses when viewing the corona discharge if you do not wear glasses. Common glass absorbs the short wave ultra violet rays which can cause eye irritation.

C) Do not operate the equipment if there is any evidence of damage to the discharge plate or its dielectric material.

D) Limit skin exposure to corona discharge about 1 minute a day. Note: A tingling sensation or slight shock can be felt when touching the plastic side of the transparent discharge plate or touching an object on the transparent discharge plate. This is inherent in this type of Kirlian device.

Kirlian Photography – A Short History

The beginning of electro-photography can be traced back to the late 1700s. In this time period, Georg Christoph Lichtenberg appears to have been the first to observe electrophotographs. Lichtenberg made note of his observation of pictures made in dust created by static electricity and electric sparks.

Nicola Tesla (1880) photographed many corona discharges using his famous Tesla coil. In the early 1900s, Russian Engineer and electrical researcher Yakov Narkevich-Todka exhibited interesting electro-photographs he made. A little later, but around the same time, Dr. F. Strong of Tufts University Medical School used a Tesla coil to make electrophotographs of his hand.

Russian Researcher Semyon Davidovich Kirlian and his wife Valentina began their work with high-voltage photography by accident in 1939. Semyon Kirlian was an electrical repairman in the city of Krasnodar. He had been called to do a repair at a local research institute. While at the institute, he happened to see a demonstration of a high frequency device used for electrotherapy. As a patient underwent treatment Kirlian noticed small flashes of light between the patient's skin and the machine's glass electrode. Kirlian wondered if he could photograph that light. Kirlian substituted a metal electrode for the glass one used in the machine to prevent exposing the film to light. Then, using himself as a subject, he was able to photograph the corona discharge.

Kirlian collaborated with his wife for over 30 years, developing equipment and studying electro-photographs. They made instruments to examine high-frequency currents on living tissue as well as on inanimate materials.

The Kirlians' work was highlighted in a book published in the United States in 1970 titled 'Psychic Discoveries Behind the Iron Curtain', by Sheila Ostrander and Lynn Schroeder. This is where I as well as many others first learned of electro-photography. Their work became so well known, that electro-photography from that point on became known as Kirlian photography.

Many paranormal claims were made concerning the resulting images. The Kirlians' claimed that this type of photography could be used as a medical diagnostic tool. Stating that disease in subjects shown as a modified or disrupted pattern of discharge, before obvious symptoms became manifested in the subject. Naturally this claim generated much interest in this country.

One must keep in mind that most of the observable Kirlian phenomena that's been reported does not require any paranormal or bio-plasma field to be explained. As an example, stress or the "act of lying" can easily be detected with a lie detector that relies on measuring the change in a person's galvanic skin resistance. Stress caused by lying may also be seen in a Kirlian photograph as a change in the corona discharge (aura). However this change in the corona discharge is easily explained by the change in a person's skin resistance.

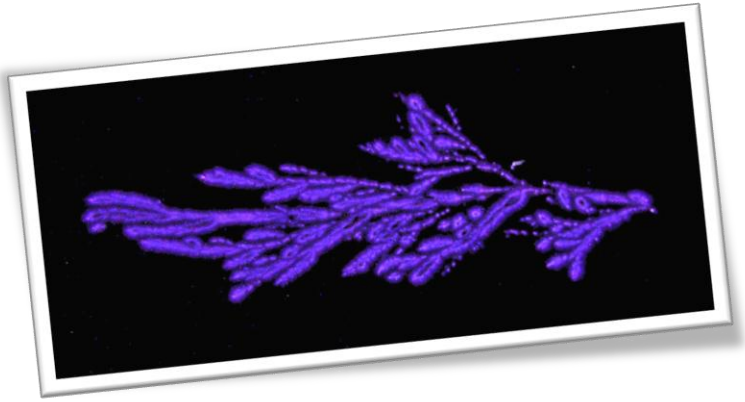
And it follows that much of the phenomena claimed to be paranormal by some Kirlian researchers can be explained by employing known physical laws, like changes in subjects skin resistance (which can be due to factors like; stress-lying, illness, fatigue, alcohol consumption, etc. Some other variable factors influencing the resulting Kirlian picture include the object's pressure against film, humidity, air pressure, voltage, frequency, and exposure time.

However the most interesting of all the Kirlian claims is known as the "phantom leaf" experiment. Here a small portion of a leaf is cut off; the leaf is then photographed using Kirlian photography. In a small percentage of cases the cut portion of the leaf appears in the photograph as a ghostly apparition. The appearance of the cut portion of the leaf, as claimed by the Soviet researchers is proof of an ethereal bio-plasma body.

Although a few Kirlian researchers have claimed to duplicate the phantom leaf experiment in their own labs, the most reported successful results (phantom leaf photographs) are from Soviet researchers. The exact experimental parameters (voltage, frequency, etc) needed to obtain phantom leafs are either not available or didn't work for me.

Phantom leaf photographs are very easy to fake using a basic double exposure technique. Take a short exposure of the entire leaf. Stop the exposure, cut off a small section of the leaf, and then continue the exposure. In the resulting photograph the removed section of the leaf will appear as a distinct ghostly image, a phantom.

Whether Kirlian photographs are showing us something new or not they are unique and often times beautiful. You may use Kirlian photography to explore the phenomena or take beautiful pictures. Proof of the phantom leaf effect, if it exists, would begin a new paradigm in both physics and biology. Kirlian photography has the potential for becoming a diagnostic tool (both biological and industrial).



Digital camera image. Exposure 15 seconds shot through transparent discharge plate.

Standard 35 mm camera & color film shot through transparent discharge plate. (exposure unknown)

To shoot Kirlian photographs using standard lens camera; digital, film and video, requires the use of a optional transparent discharge plate.

The transparent discharge plate has two sides. A plastic coated side and a glass side. The object being photographed are positioned on the plastic side of the transparent plate in direct contact with the transparent plate. This will provide the brightest corona discharge to photograph.

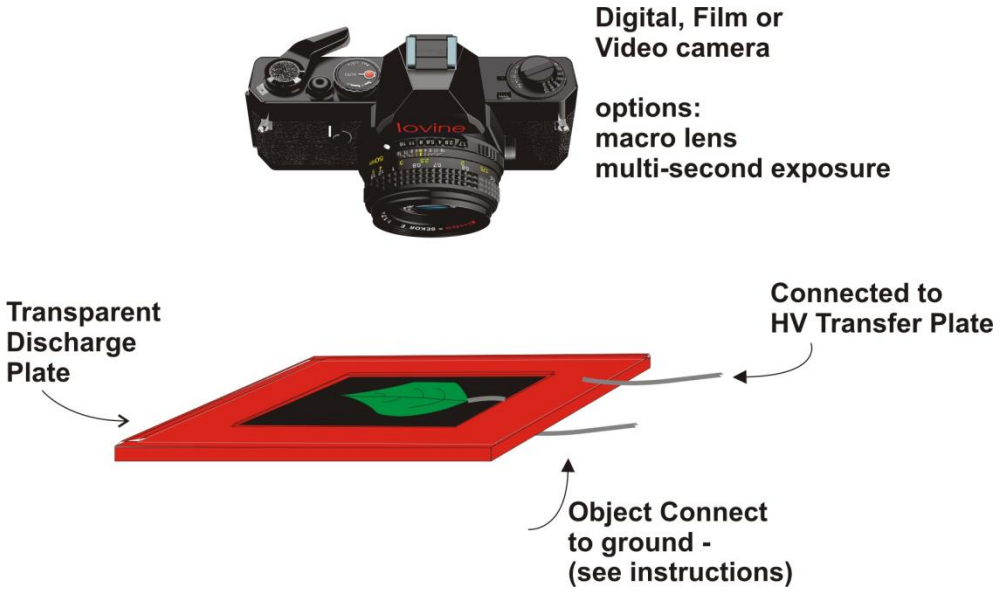


Figure 1

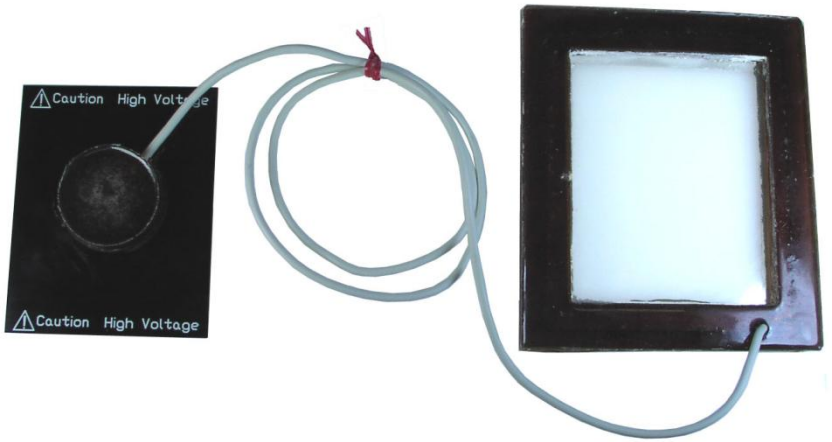


Figure 2

To shoot Kirlian Photographs The camera is positioned on the opposite side of the transparent plate, focused through the transparent plate on the object being photographed. All room lights are turned off so the camera can record the faint corona discharge around the object. The high voltage is applied to the transparent discharge plate and the camera shutter is opened to expose the film, or CCD element (digital camera). See figure 1.

The transparency of the transparent discharge plate surpasses 90 percent. If consists of three components. The transparent discharge plate, HV wire, and transfer plate, see figure 2.

Energy is supplied to the transparent discharge plate through the transfer plate. The transfer plate is placed on the HV plate on top of the kirlian device, see figure 3. When the Kirlian device is activated, high voltage is provided to the transparent discharge plate, see figure below. All controls on the Kirlian device work with the transparent discharge plate.

Figure 3

Figure 4
Coin shot with transparent discharge plate and digital camera.
(Exposure 12 seconds)

Typical exposure time is using a digital camera is 10-20 seconds or greater. Film camera's with bulb setting may make multi minute exposures if needed.

As an example, here is the procedure to shoot a leaf. In this example the leaf is at ground potential and the transparent electrode is at the HV potential. Make the set up in a room that can be made relatively light tight. The leaf is placed on a black non-reflecting, nonconductive surface. This improves background contrast. The transparent electrode is placed over the leaf. The thin plastic sheet side on the electrode is placed on the leaf. The leaf is connected to ground using by an alligator clip wire.

The camera is positioned over the assembly (see Figure 1). The view through the camera should only show the object under the transparent electrode. This is accomplished with a close up lens (macro); a 4+ adapter or a reversing ring. The camera must be manually focused onto the object. If an auto-focus camera is being used set it to manual focus operation.

Open the aperture (f-stop) of the camera as wide as possible (2.0 or 2.4). If you are using a digital camera manually set the exposure to 10-20 seconds. If you are using a film camera, set the shutter to B (bulb) to make long timed exposures. With the shutter set to B, The shutter remains open as long as pressure is kept on the shutter. Using a shutter release cable attached to the film camera will make taking pictures much easier. You can use any type of color film in the camera. I advise using the fastest film available, either ISO 400 or ISO 1000.

Manually focus the camera on the object with the room lights on. After the camera is focused, shut off all the room lights. Use a flashlight with a deep red filter to navigate around the room. When you are by the camera turn off the flashlight and open the shutter of the camera using the cable release. Now turn on the high voltage power supply. Keep the hv power supply for the length of the exposure you are making (10-20 seconds. Next release the shutter using the cable release. Turn on the room lights and set up your next picture.

One hint I'd like to pass along. If you are using a 35 mm film camera, start each roll of film with a few conventional pictures. This allows the photo-lab to align the film frames properly on the machine. Tell the photo lab to print all frames, they may interpret the glowing outlines and corona discharges as picture errors and not print them.

The same technique described here for taking stills may also be used to film real time Kirlian video. The video camera required must be capable of taking low light video, or be equipped with an light enhancing image intensifier.

Grounding for Transparent Discharge Plate

When shooting live or human subjects, do not allow the subject to come in contact with a ground. This will increase the HV current through the subject and may be uncomfortable to the subject. Typically a person doesn't need to be grounded, they just need to touch the plastic side of the transparent discharge plate to create a corona discharge.

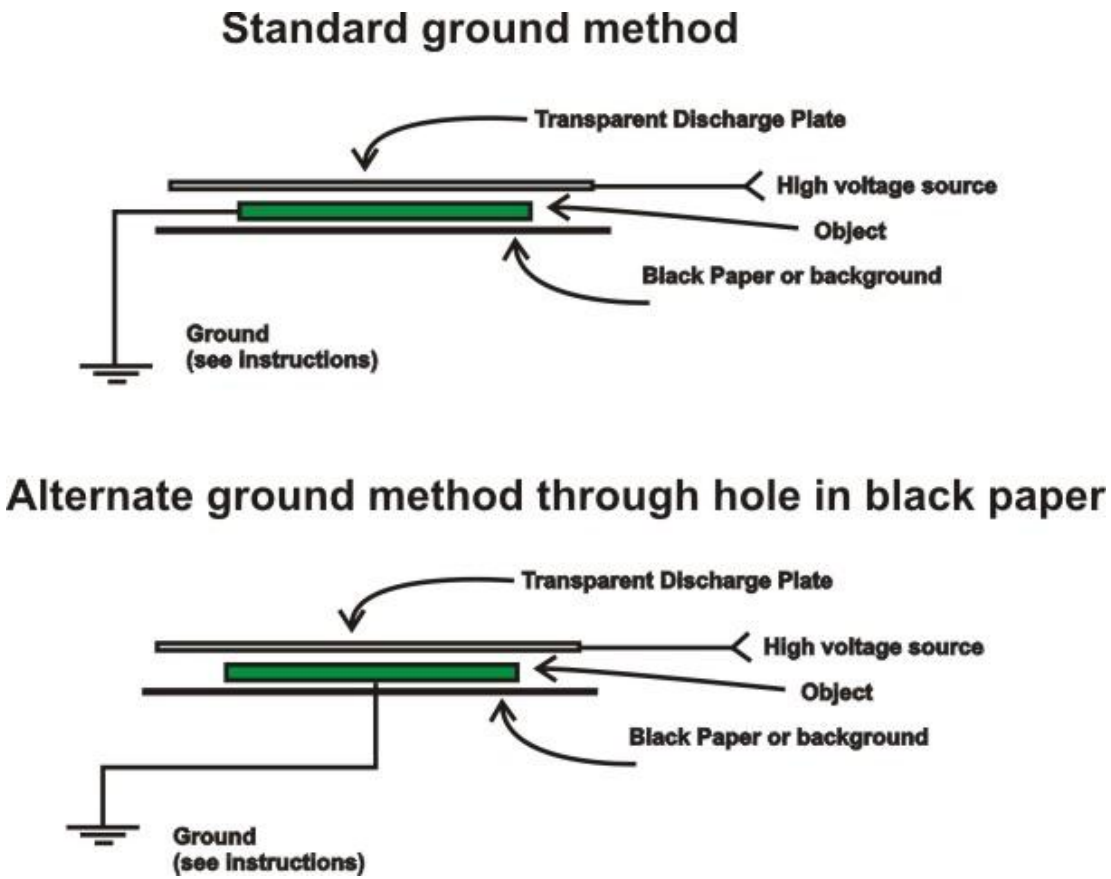
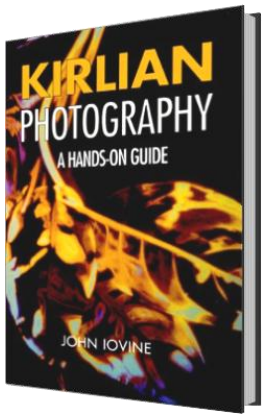


Figure 5

When shooting inanimate objects like coins and leaves, a ground is necessary to create a corona discharge. One may ground inanimate objects you are planning to photograph in any number of ways. The grounding illustrations in figure 5 (next page) detail two methods. The first illustration shows the ground wire directly attached to the object. When shooting like this many times the ground wire will be visible in the photograph. To remove the wire in the photograph I use the second method illustrated, a small hole is made in the black paper background. The ground wire is fed through the hole to touch the object being photographed. Resting the object on top of the ground wire, gives a nice black background and a ground for the object without any obtrusive wires. You may also use a small grounded copper plate in place of the wire as long as the object you are shooting makes contact with the plate through the hole of the black paper background.

Optional Equipment



Kirlian Photography Book

In Kirlian Photography, John Iovine gives you all the hands-on guidance you need to produce Kirlian photographs using standard 35mm or video cameras.

You'll also learn about the history of electrophotography and many of its possible applications in medicine, industry, and the military. Especially illuminating is his discussion of the "phantom leaf" aura that continues to baffle scientists.

Foot Switch

The foot switch plugs into the ¼ jack on the side of the Kirlian case. You can use either the discharge switch on the Kirlian photography device or the footswitch to activate the discharge plate.

The foot switch has a small switch in front that you can set to one of two positions: ‘Normally Open’ (NO) and ‘Normally Closed’ (NC).

In the Normally Open (NO) position, pressing the footswitch activates the circuit as long as your foot remains pressed on the footswitch.

In the Normally Closed (NC) position the device will be active as soon as the main power is turned on. To deactivate the HV circuit press down on the footswitch. Most people use the footswitch in the Normally Open position.