

SIMPLIFIED CAPACITOR

~ Assembly and Experiments ~

N99-B10-1324-05



Manual of Operations

IMPORTANT!

Read the following before using this equipment:

Carefully follow all instructions and observe all precautions given in this manual

Version2.1.JL112816



LOOK US UP ONLINE

STEP ONE: CHECKING THE PARTS

First things first, check your equipment and make sure you have all the parts show in the photo to the right and listed below.

PARTS IN THE KIT:

1. Polyvinyl chloride (PVC) pipe:
18 mm in diameter and 250 mm long (1 piece)
2. Plastic bag:
Dedicated thick sheet (1 piece)
3. Aluminum foil:
350 x 250 mm for electrodes (2 sheets)
4. Electrode leads:
Vinyl wire with an alligator clip
(2 pieces, red and black)
5. Aluminum tape
(50 mm wide x 220 mm long) for

ATTACHING THE LEADS.
(Not shown)

THE FOLLOWING TOOLS (NOT INCLUDED) ARE REQUIRED FOR ASSEMBLING THE KIT:

Scissors or utility knife and cellophane tape.



STEP TWO: ASSEMBLY

1. Cut the two sheets of aluminum foil so they are a little smaller than the plastic bag.
***Caution: the aluminum foil is easy to damage so cut carefully.**
2. Use a utility knife to remove the coating from the red and black leads about 210 mm from the end, then lightly twist the copper cores to prevent them from parting (photo 1).
3. Cut the provided aluminum tape into strips lengthwise. Attach the bare copper core of each lead prepared in step 2 to the aluminum tape (photo 2).
4. Put one piece of the aluminum foil into the plastic bag, leaving about 30 mm outside of the plastic.
5. Attach one of the leads with the aluminum tape to the aluminum foil protruding from the bag (photo 3), then insert the entire assembly inside of the plastic.
6. Attach the second lead (with the aluminum tape) to the second sheet of aluminum foil.
7. Place the foil on top of the plastic bag and in line with the foil in the bag that was prepared in step 5 (photo 4).
8. Tape this sheet of alluminum foil down (using cellophane tape) to prevent slippage.

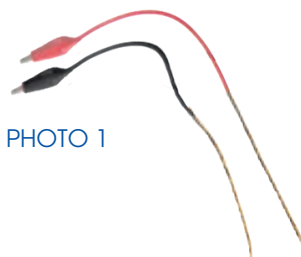


PHOTO 1

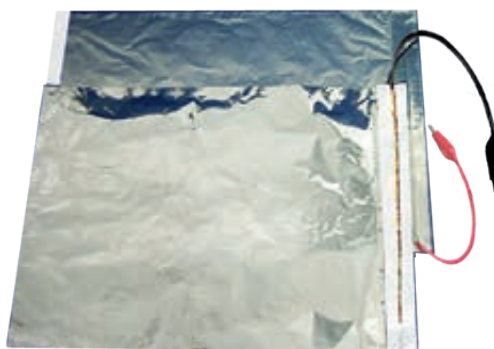


PHOTO 2

PHOTO 3



PHOTO 4



8. Place the PVC pipe on the other end of the plastic bag. Keep it in place using cellophane tape (Photo 5).

9. Wind the plastic bag around the PVC pipe. Be careful to avoid wrinkling the aluminum foil. Secure the loose edge with cellophane tape (Photo 6).



PHOTO 5

This completes assembly of the Simplified Capacitor (Photo 7)

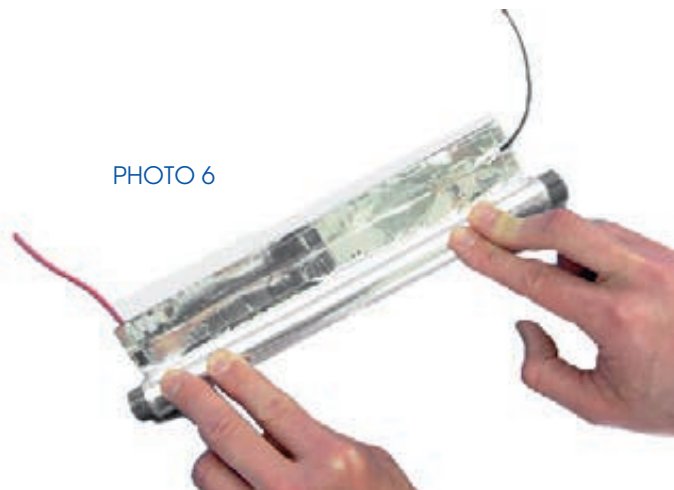


PHOTO 6

STEP THREE: PERFORMING THE EXPERIMENT

PROCEDURE

1. Connect the red and black alligator clips of the simplified capacitor to your Static GENECON™ (or other energy source).
2. Generate electricity by turning the generator's handle 15 to 20 times to charge the capacitor.
3. Remove the clips from the generator
***Take care not to induce electric shock!**
4. Connect the leads of the capacitor to the electrodes of a neon tube lamp.
5. Explain why the neon tube lamp produces light energy.

Note: This experiment can also be conducted using a fluorescent lamp but you need to turn the generator handle 80 to 100 times to sufficiently charge the capacitor.

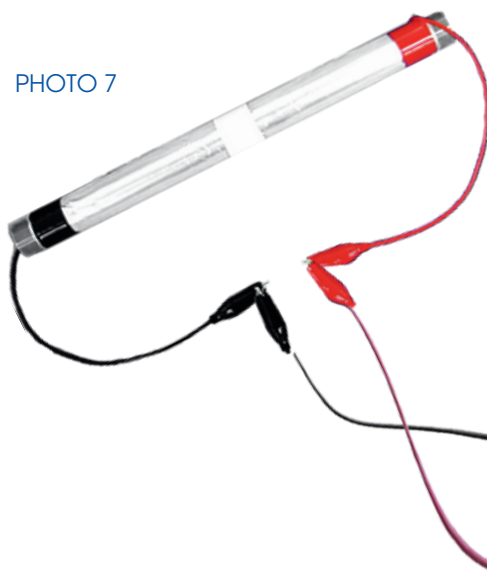


PHOTO 7

CAUTION!

Failure to Adhere to the Following Could Result in Damage to the Equipment

1. When charged by the electrostatic generator or a similar high-voltage generator, the capacitor may have very high voltage. Never touch the electrode terminals after charging the capacitor.
2. Never use this capacitor to feel an electric shock in a circle of people connected hand in hand or similar experiments.
3. Do not damage the exterior of the capacitor or prick with a sharp point. Damage to the aluminum foil will cause not only reduction of the capacitance but also leakage of high voltage to the exterior, which can be very dangerous.

