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A Non-Lethal Electric Shock Generator with Wireless Control Function

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A Non-lethal electric shock generator was presented. The intensity of electric shock can be adjusted by remote control device according to the status of the target. This kind of no-lethal electric shock generator extends the range of application of electric shock from about 9 meters to 30 meters. The manner of using electric shocks of single intensity is also changed by telecontrol adjustment. It can provide electric shocks of different intensities for different conditions, such as different distances from special electrodes to targets, different targets with different clothes and different height or weight.

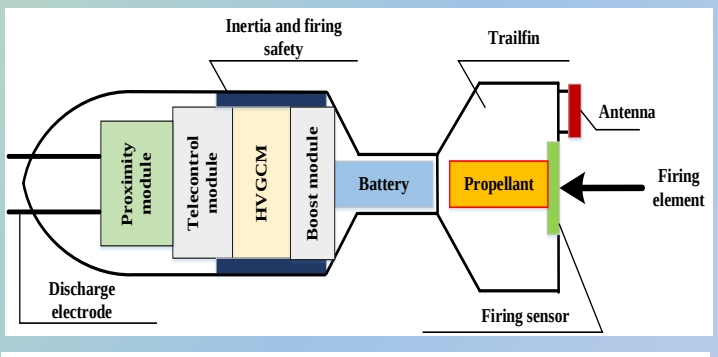

Figure 1. Schematic diagram of the non-lethal electric shock generator

The non-lethal electric shock generator includes firing element, propellant, battery, boost module, high voltage rectifier control and discharge module (HVGCM), telecontrol module, proximity module, two barb electrodes, etc., as shown in Figure 1.

High voltage generating and controlling module is the core part and plays a crucial role in sending electric shock to the target. Figure 2 is the schematic diagram of discharging circuit.

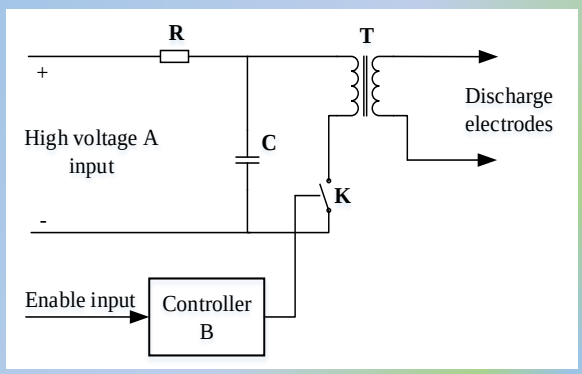

Figure 2. Schematic diagram of discharging circuit

Figure 3. Photograph of launching device and the non-lethal electric shock generator

A non-lethal electric generator and corresponding launch device were made, as they are shown in Figure 3. Then static discharge test was carried out. Figure 4 is the photograph of static discharge test. By pressing the button in the remote-control device, a brief arcing pulse was generated, which ionized the intervening air to establish a conductive path for the electricity. The red circle marks out discharge arc.

Figure 4. Photograph of static discharge test

As it is shown in Figure 5, launching experiment of non-lethal electric shock generator was executed. The basic functions had been verified.

Figure 5. Photograph of launching experiment