

## VICTOREEN RADIATION METER

### Component Parts

- 1 - Meter and controls
- 2 - Ionization chamber
- 3 - Batteries
- 4 - Carrying Case

The meter and controls are located in the top of the case in the section in front of the handle. A second control used as a voltage adjustment is set in a depression on the right side of the case. A third adjustment seldom used is a coarse 0 balance adjustment on the rear of the meter control box.

The ionization chamber is located in the front section of the case directly below the meter, and when the instrument is used, this part of the case should be pointed toward the source of radiation.

A 45-volt, heavy duty, dry batter (Burgess #2308) is located in the compartment directly under the handle and access may be had when necessary by opening the clasp and lifting the leather tab.

The carrying case has been designed to conveniently facilitate the use of the instrument.

### OPERATION

Release the front clasp, lift the lid which exposes the meter. Turn the left-hand knob to the right until the switch clicks ON. Then set the right-hand knob at the TEST position, and note whether the meter pointer indicates 35 on the dial, (note figures below scale). To adjust at the 35-volt mark, turn the knob on the right side of the case, in the direction necessary to make this voltage adjustment. Now turn the right-hand knob to the RUN position, and balance the pointer to 0 by turning the left-hand knob until this balance is obtained. If balance cannot be made it is then necessary to adjust the coarse 0 balance noted above.

The instrument is then ready for use and as you approach any source of radiation, the meter pointer will be deflected in direct proportion to the intensity of the radiation at that location.

The SET position is never used unless the instrument must be balanced in the field of radiation. In this case the procedure requires the following steps:

- 1 - TEST as above.
- 2 - Set knob to SET position and balance pointer to 0 by turning left-hand knob until this balance has been obtained.
- 3 - Turn knob to RUN position and any deflection is proportional to the intensity of the radiation.

Top reading on the scale (2.0) indicates an intensity of 2.0 milliroentgens per minute, but the most accurate range of the scale is from 0 - 1.0 (milliroentgens per minute). The instrument is calibrated within an accuracy of 10% between these limits.

If you cannot adjust the voltage to 35 on the original TEST position, it indicates that the batteries need replacing. Any absorption to radiation caused by the instrument itself consists of 1/4" of plywood in the case and 1/16" of cardboard in the ionization chamber wall.

*return to  
Hby with meter*