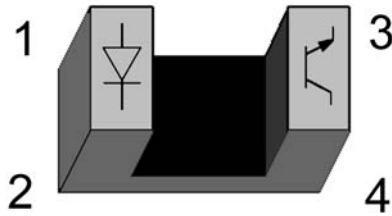


Addendum to TPG: Replacing the PT/LED pair with an interrupter



The interrupter is a single component that can take the place of the phototransistor (PT) and the LED in the transistor trigger photogate (TPG). (See photo to the right.) This is useful when the object which breaks the infrared beam is small enough to pass through the slot between the posts of the interrupter. Some possible applications are vibrating strings and spinning discs.



Use the instructions below to wire the interrupter into the same locations as the PT and LED in the TPG kit.



The diagram to the left shows the view of the interrupter looking down on the posts. The sym-

bol  represents the LED, and the symbol  represents the PT. In the circuit diagram below, the interrupter replaces the PT and LED components. Therefore, points **c** through **f** on the diagram would be connected to the interrupter. Make the connections as follows. The numbers on the diagram to the right refer to the legs on the underside (not shown) of the interrupter.

Wire leads may be soldered onto each of the legs of the interrupter.

- Legs **2** and **3** are connected to point **c** (or **d**).
- Leg **1** is connected to point **e**.
- Leg **4** is connected to point **f**.

Alignment and sensitivity: The light emitting and sensing elements of the interrupter are near the ends of the posts. Therefore, when in use align the interrupter so that the triggering source (such as a drop) passes through that portion of the interrupter. Adjust the sensitivity with the 100-k Ω potentiometer.

