ILFORD
JUNIOR
FLASH GUN

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The Ilford Junior Flash Gun is a simple accessory which enables snapshots to be taken indoors with practically any camera, using the open-flash method. The gun consists of three parts, a black bakelite battery case, a plastic reflector and diffusing cover and a spring. The battery case has an opening in the base so that by pushing on the battery cover, the spring is compressed and the central contacts of the battery and the bulb are brought together thus firing the bulb.

**INSERTING THE BATTERY**
The flash gun is designed to use the G.E.C. BA 6115 Photo-flash Cell, obtainable from your photographic dealer. Other batteries are not suitable. To insert the battery in the flash gun remove the outer cardboard case from the battery. Unscrew the white plastic reflector from the black bakelite battery holder and take out the coil spring. Insert the battery into the case, flat bottom downwards. Replace the coil spring on top of the battery, its smaller end uppermost and screw the reflector back into position.

**FLASH-BULBS TO USE**
The flash gun has a bayonet-type catch moulded into the reflector and will take any flash-bulb with an ASCC. cap or capless flash-bulbs used with an adaptor to ASCC.

**FILMS TO USE**
Ilford Selochrome and FP3 films are recommended for general home photography; when faster films are required as in large rooms, HP3 and HPS films should be used.
TAKING A FLASH PHOTOGRAPH

The procedure recommended is as follows:

1. Load the camera with film.
2. Load flash gun with battery and bulb, and place the diffusing cover over the reflector.
3. Arrange the group. Steady the camera on a chair or table, or, if available, on a tripod or camera clamp, adjust the lens aperture as necessary (see exposure guide below), and set the shutter to B (brief time) or T (time). If using a box camera, a portrait attachment may be necessary if the subject is less than 10 ft. from the camera. See instructions issued with camera.
4. Hold the flash gun near to the camera with the bulb and reflector facing the group, open camera shutter, fire the bulb by pushing on the battery through the hole in the base of the battery case. Close the camera shutter. With practice, the time that the shutter is open need not exceed half a second.
5. Wind on the film and withdraw the used flash-bulb.

EXPOSURE GUIDE

A comprehensive exposure guide is normally given with each packet of flash-bulbs, and should be referred to.

The following condensed exposure guide shows the type of exposures required with Selochrome or FP3 film. With HP3 film the distances given should be increased by about one-half and with HPS film the distances should be doubled.

Table of recommended distances of flash-bulb from subject, using Selochrome or FP3

<table>
<thead>
<tr>
<th>Flash-bulb</th>
<th>Lens aperture*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f/11</td>
</tr>
<tr>
<td>No. 1, PF.1</td>
<td>7 ft.</td>
</tr>
<tr>
<td>PF.14</td>
<td>9 ft.</td>
</tr>
<tr>
<td>No. 5, PF.5</td>
<td>13 ft.</td>
</tr>
</tbody>
</table>

* The normal aperture of a box camera may be taken as f/16.
NOTES ON OPEN FLASH TECHNIQUE

(1) When taking flash photographs at night, it is convenient to leave the ordinary room lighting switched on. This is quite in order, but when the open-flash method is used the time that the shutter is open must be limited to a fraction of a second, to prevent the possibility of a second image from the room lighting. It may sometimes be advisable to have less room lighting than usual. The open-flash method is not suitable for use in rooms brightly lit by daylight. It may, however, be used at dusk if the curtains are drawn.

(2) The position of the flash-bulb in relation to the camera is quite important. Unless special effects are required it is recommended that the bulb should be close to the camera, say, not more than 2 or 3 feet away, and slightly above and to one side. The bulb should not be below the camera—this will lead to unsightly shadows of the subjects on the background.

(3) When the open-flash technique is used some method of steadying the camera is necessary. We strongly advise the use of a tripod or camera clamp, though these are not essential; the camera can instead be rested on a chair or table or steadied by means of a neck-sling.

(4) Flash-bulbs should be used with a reasonable amount of care; the maker’s recommendations on this subject are usually printed on the packet.