

CRAWFORD H. GREENEWALT
DU PONT BUILDING
WILMINGTON, DELAWARE

March 23, 1961

Mr. Eliot Porter
Route 4, Box 33
Santa Fe, New Mexico

Dear Mr. Porter:

Immediately on its arrival I sent the "potsie" and its accessories to Ron Schwenker asking him please to diagnose the difficulty. I send you herewith a copy of his letter of March 20 from which you will see that the "potsie" is working fine now and he thinks that the difficulty was a wire with damaged insulation.

As to the suggestions he makes of possible modifications in the last paragraph of his letter, I would strongly urge, and have told him so, that the "potsie" be left as presently designed. There is a very real advantage to having it sensitive at low levels of illumination since more often than not this makes it possible to get by without the use of a flash light. If the level of illumination is high enough to warrant it, it is a very easy matter to put an aperture on top of the phototube. As to the two photocells with the resultant battery drain, I don't think that is desirable either.

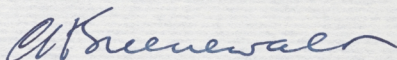
Now I would be very happy indeed to send the "potsie" and its accessories out to you for another try if you would like. On the other hand, if you have sufficient faith and would like to accumulate a "potsie" of your own, Ron Schwenker tells me he will be glad to build you one and that the cost would be somewhere between \$250 and \$300 depending upon what accessories you want. If you would like Schwenker to go ahead, I would

suggest that you write him directly. His address is

R. P. Schwenker
E. I. du Pont de Nemours & Co.
Radiation Physics Laboratory
Experimental Station
Wilmington, Delaware.

If, on the other hand, you would prefer to have another try with the equipment, let me know and I will ship it back promptly.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. K. Greenewald".

CHG:mh
Enclosure

March 20, 1961

Mr. Crawford H. Greenewalt
9042 Du Pont Bldg.

Dear Mr. Greenewalt:

The "potsie" which was received from Mr. Elliot Porter was not operating properly when received. Unfortunately, it began functioning satisfactorily before I had a chance to establish for certain the cause of trouble. However, in checking the "potsie" I found a wire with damaged insulation in a position such that it could easily have "shorted out" the first amplifier. I feel, from the described difficulties and those I experienced, that this wire must have been shorting and causing the trouble. I corrected this condition.

The four-layer diode used in this "potsie" operates at 48 V. The batteries that Mr. Porter used for replacement may well have supplied 48 V resulting in self-triggering. I will replace the diode with a less critical one.

As for the saturation problem, I found that on a mediumly bright day saturation occurred when the photocell was looking at or very close to the sun. It would appear that selection of the background with possibly the use of one aperture, or filter, should facilitate operation of the unit under the desired range of light conditions. A decrease in the value of load resistor used would reduce the saturation problem also with a corresponding decrease in sensitivity for low light levels. I constructed a detector using two photocells, as we once discussed. This arrangement is operationally the best, resulting in maximum sensitivity at all light levels. However, with this system the battery drain becomes significant at high light levels. I personally feel, in view of the increased battery drain, that one of the other solutions is preferable. I would appreciate learning your opinion based upon your experience with the "potsies."

Sincerely yours,

R. P. Schwenker

R. P. Schwenker

RPS/K

RECEIVED

CHAS. E. JOHNSON

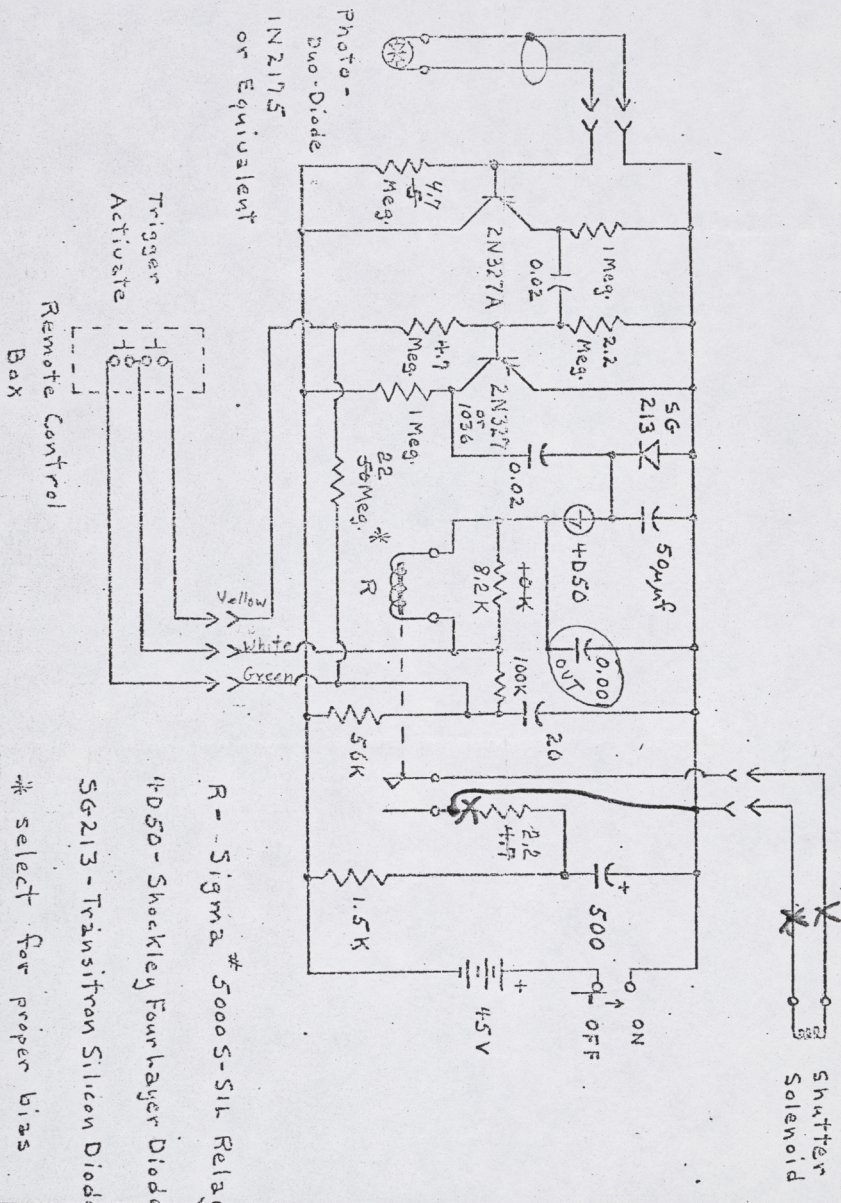
Proj. No.	PLANT	TITLE

BLDG. OR AREA	FUNCTION	SUBJECT

NAME R. P. Schwenker

DATE _____

Photo-electric Camera Shutter Solenoid Operator
(["]Potsie["] Mark III, Mod I)



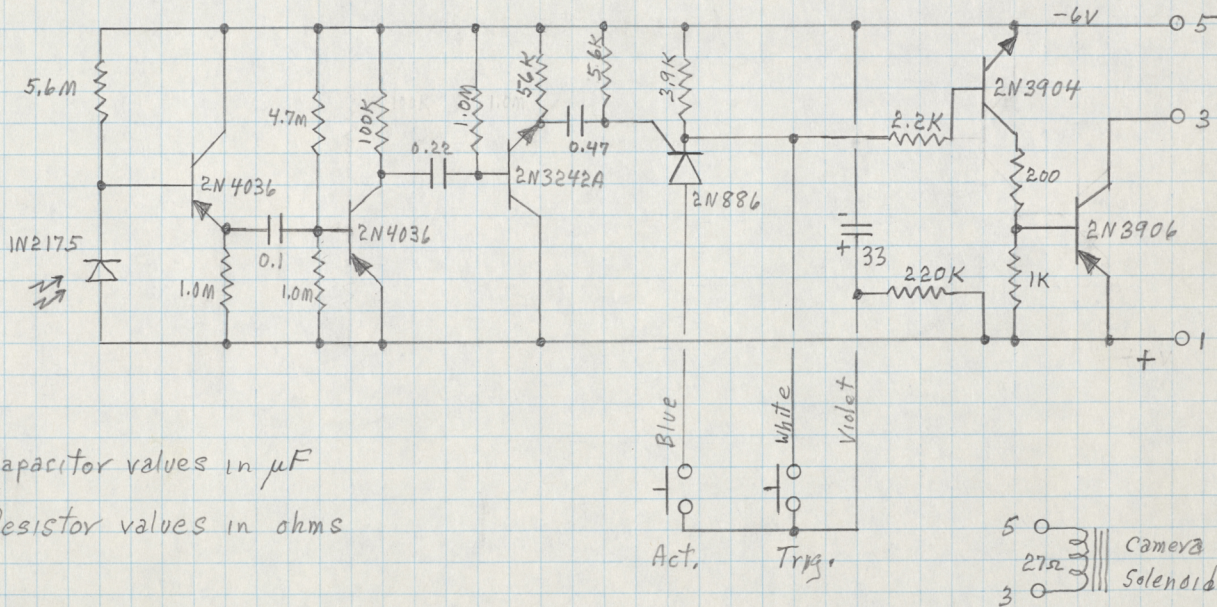
R-Sigma # 50005-SIL. Relat

1-D50-Shockley Four-layer Diode

SG-213 - Transifron Silicon Diode

- * select for proper bias

Potsie for Motorized Hasselblad



Jan. '74