



Fig. 5. Schematic of power supply.

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console is required, as well as a power supply (Fig. 3) mounted with the interlock

motor pulsing unit; 24 d-c is required by the counter and control circuits and 300 d-c

for the Nixies. We chose to regulate the 300 to give a steady illumination level and used a heavy bleeder on the 24-v supply to stabilize it. The power supply drawings (Figs. 4 and 5) are of interest chiefly because almost any other design would suffice. We gilded the lily component-wise to eliminate all possible points that may become troublesome.

The unit has been in operation five days a week for over a year and the only maintenance required so far has been the replacement of one OD3 tube and one 35mm-speed microswitch. The microswitch was a used one, of unknown age when installed, so no conclusions can be drawn from its performance.

Nothing is critical in the circuit except the following: The Neutron must not be pulsed accidentally while resetting, so an interlock if provided in the control circuits to prevent this. The unused Nixie socket points *should not* be used as tie points as the tube prongs sometimes lead into the enclosure and get near the gas.

As of this writing at least two other studios have built this unit and to my knowledge are using it every day.

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Letter to the Editor

Re: Compatibility

Dear Sir:

President Reid Ray's Message to the Members, which appears in the January 1964 *Journal*, is a timely reminder of the interrelationship of motion-picture and television engineering. In spite of some rivalry on the commercial side, the technicalities tend to be mutually compatible. Films are shown on television in large numbers, and some television techniques find uses in motion-picture production. If we assume that continued integration and cooperation are both desirable and essential, then it is necessary for those developing new systems of television or motion pictures to bear in mind the problems of the other side.

This introduces two concepts of compatibility in films. First, for maximum economic usage, any film should be made with the problems of both theater and television presentation in mind. Wide-format multitrack systems are fine in the theater, but present considerable problems to television transmissions, problems which are not resolved by persuading TV stations to install 35mm rather than 16mm equipment. It should be noted that compatibility with TV requirements also covers compatibility with most educational and small-format film equipment.

Second, it would be of the greatest possible value if films using new or unusual systems could be reproduced on standard theater or TV projectors without modification, at the expense of losing the new system's particular benefit. This type of compatibility is that aimed for in any of the current color TV systems, whereby a reasonable black-and-white picture can be resolved from the color signals if the viewer does not wish to buy the extra equipment for color. That this com-

patibility has not, so far, been considered in theater use is because of the relatively small number of first-run theaters involved if modified equipment is required.

Two developments in various stages of achievement are stereoscopic and stereophonic films and television. Stereophonic TV is technically simple — but where are the standards for 16mm release prints with stereo tracks that are compatible; i.e., give full monaural output when played through a standard soundhead? Autostereoscopy has not been used to any extent in films, but it may be possible in TV because of the existing requirement for exact registration of images for color reproduction. It is to be hoped that the film process can be adapted from the TV requirements to avoid dual development. In the same way, the choice of color TV system should be made, bearing in mind the likely requirement for the adding of a "depth" signal. This in turn could affect the design of color cameras, both TV and film.

It has not been the practice of the Society in the past to suggest general standards for development, in spite of pressure during the recent small-format arguments. The writer feels very strongly that this should be a major part of the Society's standardization activities, and that the problems of future systems compatibility is a good place to start.

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