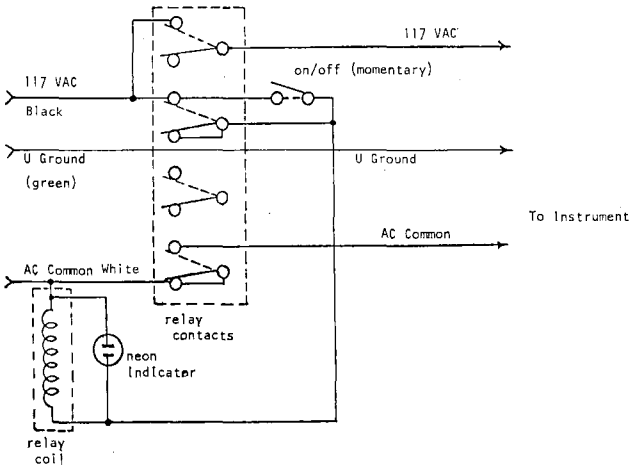
AUTHOR'S REPLY

Dr. Richardson's comments concerning the permanent and continuous ground and the labeling of the "hot" lead are correct. This was a mistake on



Revised schematic of "low-voltage drop-off" box.

my part while drawing and labeling the schematic. The figure above is a schematic with the appropriate corrections illustrating the proper design on our "low-voltage drop-off box".

After further investigation, I also agree with his comments concerning the cause of the bright spots in the center of the pictures. I might add that these spots are caused as a result of the power being quickly restored after a momentary loss.

Dr. Richardson also stated that the protective relay is not necessary in *most* cases. In our department we believe, however, that any prevention of down time due to a power supply failure resulting from an interruption of power is necessary. If the relay box is successful only once, it has more than paid for itself.

The cliche, "Necessity is the mother of invention," might be applicable to the genesis of this device. It is not uncommon to have tornados or severe thunderstorms in Kansas during the spring and summer. Our department may experience power loss four or five times a month during this period. When this happens, of course, the hospital automatically switches to emergency power and all instruments are up and running again. While on emergency power, it isn't uncommon to have a low power source on the order of 90 Vac. Prolonged low supply voltages can damage a power supply. We experienced power supply failure in a Searle Pho-Gamma camera after such a power failure. Another power failure proved to disturb the calibration of the instrument.

Relay boxes were installed on all clinical equipment three years ago and subsequently no down time has resulted from loss of power.

I thank you for bringing this to my attention.

L. DAVID WELLS
University of Kansas Medical Center
Kansas City, Kansas