Technical Notes

Adaptations of Newsfilming Camera Systems

By SHELDON NEMEYER

THE NATIONAL BROADCASTING COMPANY News Film Department has about 150 complete motion-picture equipment rigs in use under various environmental conditions round the world. A number of adaptations have been effected with the objective of insuring a steady flow of newsfilm.

1. Camera Identification

Film and camera identification is important when a defect is noted and an attempt is made to trace it to the camera. With hundreds of cameras located around the world, speed in pinpointing a camera is important.

Camera manufacturers have used coding. Bell & Howell at one time had a triangle in the aperture plate between the perforations. This enabled recognition of a B&H camera; however, it would not identify which camera of many cameras it might be.

Under a microscope, no two triangles are precisely alike, nor are the four edges of any aperture plate precisely alike. In a sense, each camera does leave its own fingerprint. Microscopic examination is a slow tedious task in pinpointing a camera when two to three hundred cameras are involved.

A very simple device was fabricated for us by Canon. It consists of a Lucite-like light transmitting plastic with numerals. Light passing through lens also exposes the numbers on the film. The block is located in the aperture plate on the intermittent side in a position between the 16mm perforations. During each frame of exposure, the serial numbers also are exposed.

2. Bell & Howell Filmo Spring

The B&H Filmo is a rugged, reliable newsfilm camera. Its main drive spring is wound by hand and stores the energy for about 25 ft of film run. The spring occasionally requires replacement. The replacement of a spring is a messy job because of the graphite lubrication.

Rather than use graphite, good success has been achieved with a tetrafluoroethylene resin. E. I. du Pont de Nemours & Co. manufactures the product under the trademark Teflon. We have been using Acheson Colloids Co. product Emralon.

The elimination of the graphite has decreased the time required for a spring change.

3. Benton Clip for B&H Filmo

The installation of a Benton Clip eliminates the problem of the take-up spool *unwinding* of a Filmo camera. The jostling of the camera in walking or from sitting in a moving car will loosen the exposed film on the take-up spool. When this occurs, usually no more than 85 ft of a 100-ft roll will go through the camera before a jam occurs.

Figure 1 shows the Benton Clip installed.

A spring is placed around the take-up spindle with its end secured by the holding plate which is held by a screw in an existing screw hole. The spring permits the spindle to take up and locks the spindle if it turns in the opposite direction.

4. Schuster Isolation Transformer

The Auricon MA-11 amplifier for use with magnetic-striped single-system filming has two microphone input positions. A problem of extraneous radio-frequency interference was annoying.

Solution was effected by the Schuster isolation transformer unit which plugs directly into the two microphone inputs and provides its own isolated inputs.

5. Schuster Matcher-Bridger

The Schuster Matcher-Bridger is a single box which eliminates the need for a soundman to carry around a bag of adapters.

It permits the matching of any input impedance to 250 Ω output. Line level adjustments can be made from 0 to −70 in 10-dB steps. Also it permits the feed from one microphone to two cameras. Almost any qualified technician can assemble a unit and hand tailor the unit to his own particular requirements.

Figure 2 is designed to suit the requirements of NBC technicians.

Abridged from an extensively illustrated presentation on October 5, 1970, at the Society's Technical Conference in New York, by Sheldon Nemeyer, NBC News, 30 Rockefeller Plaza, New York, NY 10020.

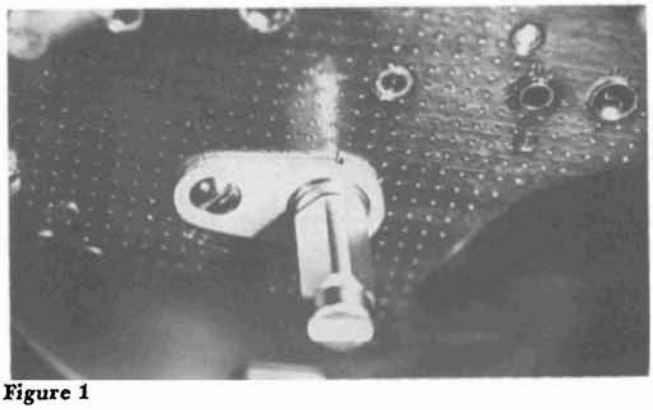

Figure 1

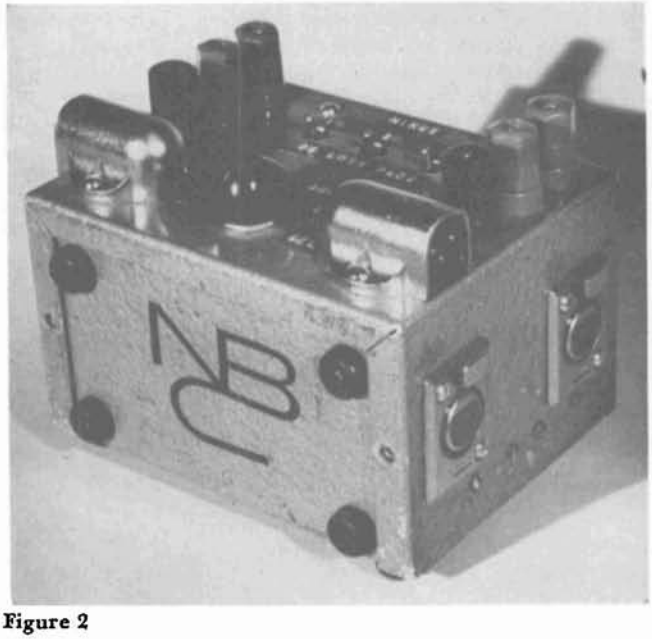

Figure 2