



Dear Andy,

The other day I was shooting tape of airplanes flying over Manhattan. I noticed black specks on the video monitor when I played back the tape. These specks did not move even when the camera was moving. What's wrong?

Sincerely,
Spot

Dear Spot,

The black specks you see are caused by little pieces of dust and dirt and crud which fall on the faceplate of your vidicon tube. This dust is difficult to remove because more dust can fall on the vidicon while you clean it. I had hoped to have a foolproof method of cleaning the tube before receiving your letter, but I guess omniscience is not enough. At every rate, here is my technique which doesn't work everytime, but will eventually get most of the filth off your tubes.

1. Remove the lens (removing the lens at other times should be avoided because dirt only gets on the tube when the lens is removed).
2. Remove the chrome ornamental ring.
3. Observe that there are six screws of two different sizes which secure the lens mounting assembly to the camera body. Unscrew the three larger screws with a Phillips screwdriver and remove the lens mounting assembly.
4. Drip a drop of menthyl alcohol or kodak lens clearing fluid on the glass faceplate of the vidicon tube.
5. Swab the tube face with lens tissue.
6. Dry the tube face with a dry head cleaning tip or other piece of chamois cloth.
7. Reassemble camera. The little indicator mark on the lens mounting assembly should be up.
8. Put the camera on standby and hook it up to a monitor or TV receiver via RF.
9. To check: close the lens, then open it one stop. Point the camera directly at a 100 watt bulb. Any dust on the tube will be silhouetted by the bulb. If there is still dust on the tube (and there usually is the first time), go through this whole routine again. Even if you have to spend an hour at it. A clean vidicon is worth the hardship.

One last note: canned air doesn't seem to work as well as I had hoped.

The dust seems to stick to the tube due to a static charge which even very powerful canned air can't overcome. Perhaps a compressor would serve to clear the dust away.

Tenderly,
Andy Mann

Tips from Andy Mann

I have been using a BP-30 for a year and have personally not had any trouble with it. However there is a lot of concern among videotape makers over the BP-30's unreliability and its fondness for exploding.

I recently was driving a car in which a friend was charging his BP-30, one which had been damaged and supposedly repaired. The charger plugged into the car's cigarette lighter. We were on US 13 doing 50 mph when the battery blew up, cracking the windshield and causing me to pull over to the side of the road. I threw the remains of the battery out of the car and it exploded again, and then a third time. The explosions were about the same magnitude as a blasting cap. That was when I decided to write this article.

I here present you with my own way of dealing with the little critters.

1. I never charge a BP-30 unless it is completely exhausted. You can tell it is exhausted when the battery meter on the AV-3400 reads in the red. Exception: before going out to shoot, I try to charge my battery for about one hour in order to peak it up.

2.a. I have never used the charger that comes with the BP-30. Instead, I replaced the charging connector with an .085" co-ax plug, such as the one found on the BP-20, and used the AC-3400 to charge my battery. Since the AC-3400 shuts down when the battery is fully charged, there is no problem with over-charging. I have been told that this is not a good way to charge the BP-30, but I am satisfied that it works. (The battery is charged in 7-10 hours and should then be removed from the charger.)

2.b. When attaching the .085" co-ax plug to the battery charging leads, the red (+) lead is soldered to the shield, and the black (-) lead is soldered to the center conductor. If these two leads short together the battery burns up.

3. The greatest advantage of the BP-30 is not necessarily its greater capacity but the fact that it is an external battery. The AV-3400 is much easier to carry without an internal battery. I wear the BP-30 on a belt around my waist.

4. BP-30's will only explode if they are abused. Sony only packages them; most BP-30's being manufactured by Gould, Inc., a reputable concern. A battery can be over-charged and overheated until it shorts out and explodes, or it can be dropped and damaged and explode while charging, but with proper care, spontaneous detonations are unlikely. To be on the safe side, try to charge the BP-30 in a cool out of the way place where even if it does explode, at least nobody will get hurt.

Incredibly enough, after writing this article I managed to accidentally short the battery out when the charging leads in my just broken .085" co-ax plug touched. The battery heated up in a few seconds and melted some of the plastic which encases the Nicad cells. The battery still works, but I feel a little foolish. It was my fault and not that of the BP-30

Spaghetti City Video Manual by Parry Teasdale and Videofreex (Praeger Books)—look for this guide to maintenance, use and repair of 1/2" videotape equipment. Available at your local bookstore or contact Praeger.