



Application Note
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TV CAMERA RAIN COVER

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The Boulder ARES group, BCARES [1] provides emergency TV coverage for the local Sheriff, Police and Fire departments. During the recent September, 2013 floods [2], BCARES had two TV camcorders destroyed due to inadequate protection from driving rains. For operations under adverse weather conditions, it is prudent to plan ahead and always have in the ATV pack set a protective rain cover for the TV camera.

In the mid-90s, TV camcorder manufacturers such as CANON and SONY offered as accessories, customized fitted raincoats for their camcorders. Unfortunately, they no longer offer these for current models. This is probably to their financial advantage. If your camera is destroyed due to rain water, then you have to throw it away and buy another. "Win-Win" for them --- "Lose-Lose" for you !



Fig. 1 ARES TV camcorder on a camera tripod with antenna mount [3]
 --- (left) normal configuration and (right) with protective rain cover.

Several years ago, I conceived of a simple idea to protect my own camcorder which I used on Boulder County Sheriff's SWAT operations under all sorts of inclement weather conditions. Key requirements are: (1) It must be sturdy, (2) It must allow unobstructed field of view for the lens, (3) It must allow the camera operator to see the viewfinder, (4) It must allow the camera operator access to the controls and finally and most important (5) It must protect the camera from rain or snow. Fig. 1 is my solution.



Fig. 2 The "Tupperware" protective rain cover

Obviously, cameras/camcorders come in different sizes and shapes. Thus, this idea must be customized for each particular camera. For the older, Sony, hi-8mm, camcorder used in this example, I selected a large, sturdy, "Tupperware" type, water pitcher, Fig. 2. I used a Rubbermaid, "MixerMate", 1 gal. pitcher (model #7E60) which cost \$10. Using a Dremel tool, I first cut off the handle portion. Next, I cut a circular opening in the bottom of the pitcher as the viewing port for the camera lens. I removed the white snap cover from the red cap to allow viewing access to the camera's viewfinder. The red cap is retained and used to provide protective covering of the rear of the camera. When needed it can be rotated as necessary to peer through the small hole to see the viewfinder. Fig. 3 shows the finished product installed over a camcorder.



Fig.3 The Camcorder Protective Rain Cover

- [1] Boulder County Amateur Radio Emergency Services, BCARES, www.bouldercountyares.org
- [2] "Amateur Radio Provides Critical Communications in Colorado Flooding Response" QST, Nov. 2013, Public Service news section, page 86
- [3] "Simple Camera Tripod Antenna Bracket", Jim Andrews, KH6HTV VIDEO Application Note AN-15, Nov. 2013 (available at www.kh6htv.com)