

# CQ Reviews:

## Coax-Seal™ Antenna Protection

BY LEW McCOY\*, W1ICP

**A**t the Dayton Hamvention last year I visited the Universal Electronics booth, and they had a rather interesting and also revealing exhibit. The exhibit consisted of a small transmitter, a Bird Wattmeter, a fish tank with water in it, and a dummy load. There were two coax lines running from the wattmeter to the dummy load via a switching arrangement. The two lines ran under the water in the tank. PL-259 coax connectors were immersed in the water and the lines were joined via female units. One line was not protected against the water, and the other line and its fittings were covered by Coax-Seal™, a product Universal was selling. The idea was that the Coax-Seal™ kept out the moisture, preventing high-power losses through the fittings because of mismatches created by the moisture. When the lines were switched to the protected versus the unprotected, the losses shown by the unprotected fitting were unbelievable! It almost looked like a carnival come-on.

Many amateurs don't realize that losses, particularly at v.h.f., can skyrocket if coax is allowed to become contaminated by moisture or corrosion. Or, as Ed Tilton, W1HDQ, the Dean of V.H.F., pointed out on many occasions, poorly made coax fittings can add as much as 5 to 10 decibels of loss!

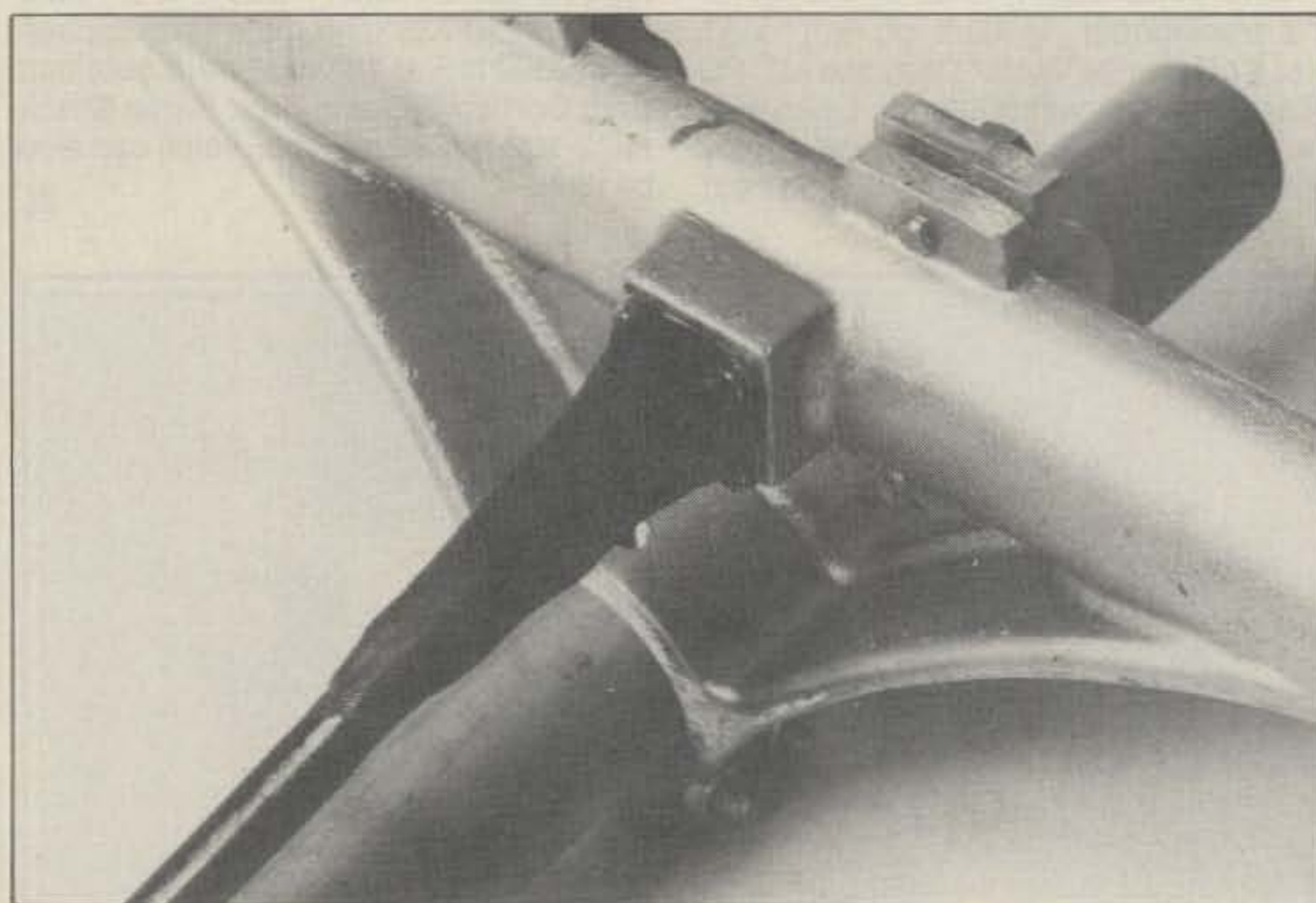
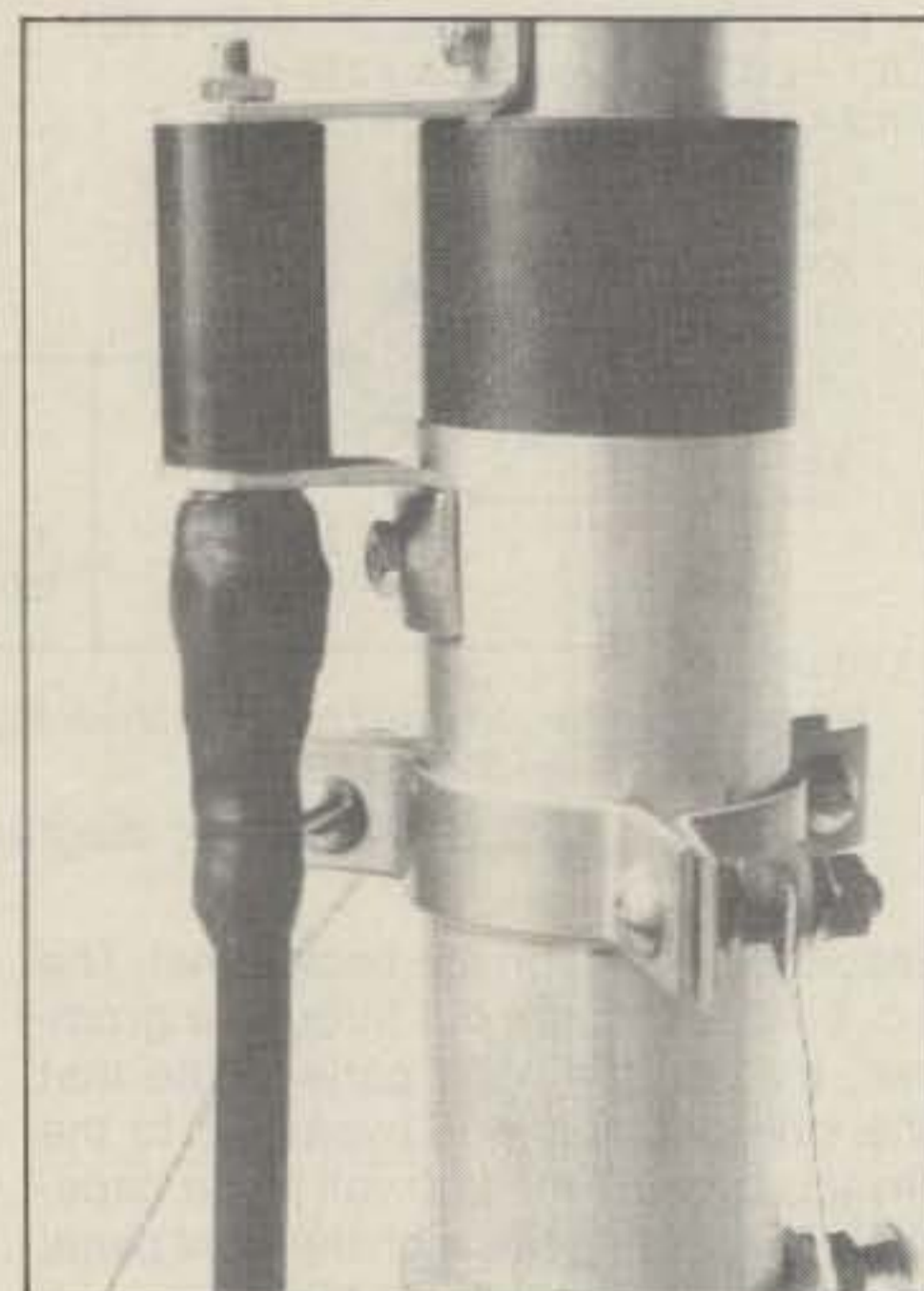
In any case, if you plan to join coax fittings where they may be exposed to any moisture, dampness, etc., then we can recommend the Coax-Seal™ product. Coax-Seal™ is a pliable, plastic material that can be wound over coax fittings or soldered connections (feed lines) of any shape or size. The material provides a long-lasting, flexible, waterproof, and dustproof seal. The manufacturer states that it will stay flexible from  $-25^{\circ}$  to  $350^{\circ}\text{F}$  ( $-32^{\circ}$  to  $177^{\circ}\text{C}$ ). The material will maintain its seal regardless of the movement of the coax. It adheres to poly easily. Also, it can be removed and reinstalled if desired.

For more information, contact Universal Electronics, Inc., 1280 Aida Dr., Reynoldsburg, Ohio 43068. 



Coax-Seal™ antenna protection coating.

*This shows the typical vertical installation with its feed point. The Coax-Seal™ provides excellent moisture protection for a normally wet-point fitting.*



*The driven element of a beam with its feed point adequately protected.*

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