

Collins S-Line

Progressively dimming S-meter light problem



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The solution

I would like to share my experience with the widely known problem of progressively dimming light in Collins S-line s-meters.

The light generated by a GE47 little bulb reflects into the internal walls of the s-meter bakelite box before passing through a 1mm narrow aperture located all around the white s-meter faceplate. To improve reflection Collins engineers painted in white the internal bakelite unit; the white paint after decades become yellowish and the bulb tends to darken as it ages. First change the bulb with a fresh one then paint the inside of the instrument with a new bright white paint.

To disassemble the unit one must take out the 4 nuts from the back of the front panel (beware, not metric but american sizes....). Don't forget to pull the nearby tubes away.



Then carefully pull the bulb socket by means of a flat screwdriver or blade. Unscrew the two contact nuts, and the meter is free to come away. To open the s-meter one must twist the three small black screws on the back barrel edge. Once the instruments taken apart (not for faint-hearted but not too difficult) I painted with a new white acrylic enamel the internal surfaces of the unit

both bakelite walls and the assembly itself as advised in "The Signal - Collins Collector Association - issue 64 first quarter 2011 pg 9" by K5IU



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Care must be taken in painting inside the light tunnel, up near the glass, though extending forward the original painting. The result is fantastic.

Further experiment with my 32S-3 with painting with white glossy enamel. A little improvement.



I was advised to try LED bulbs assembled in GE47 socket since it works well in Drake units.

I realized that Drake rig scale illumination works in translucency, while Collins' in reflection.

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So one must solve BEFORE the reflection problem with white painting, THEN you can try led bulbs, that besides, don't cook plastic.....as advised here:

<http://collinsra.org/.../.../extend-the-life-of-75s-x-receivers/>

Thanks for reading
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