



ECM3 Casting Coating Difference

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Purpose and Scope

The purpose of this application note is to provide customers with information concerning the change to the appearance of the ECM3 casting from its normal silver casting color to a yellow/bronze color. This change in color is only a change to the appearance of the control and does not affect form, fit, or functionality of the ECM3.

Background

The drawing for the ECM3 casting specifies a clear chromate finish to be applied per MIL-C-5541. This clear chromate finish gives the current castings a silver finish (Figure 1). In April 2008, Woodward's supplier of these castings notified us that the MIL-C-5541 specification had become obsolete and had been replaced by MIL-DTL-5541. The new specification is not specific about what finish type should be used. As a result, Woodward's supplier used a yellow chromate finish instead of the Woodward-specified clear chromate. This yellow chromate finish gives the new castings a yellow/bronze color (Figure 2).

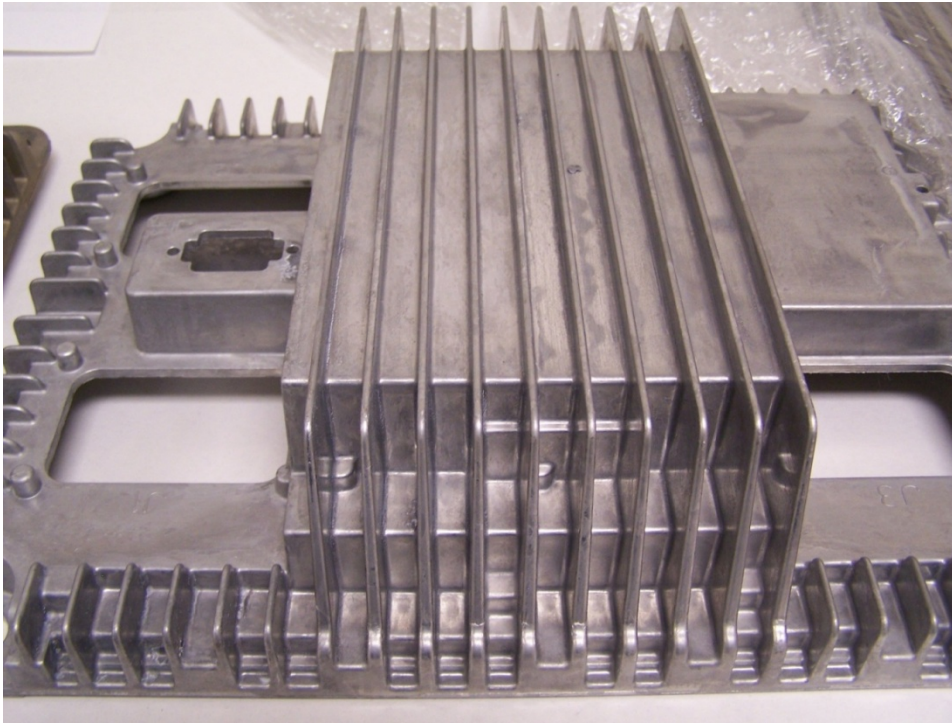


Figure 1. Casting with Clear Chromate Finish



Figure 2. Casting with Yellow Chromate Finish

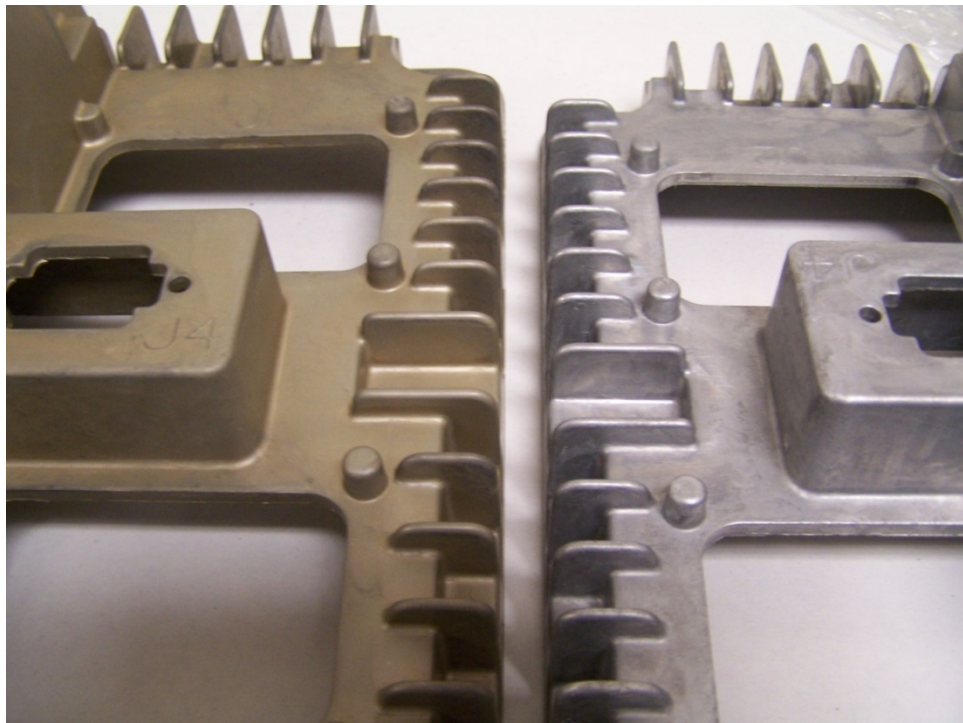


Figure 3. Side-by-Side Comparison of the Casting Colors

Woodward received 280 castings with the yellow chromate finish. Woodward performed conductivity testing on these new castings and found no difference when compared to the clear chromate finish castings. Woodward feels that there is no form, fit, or function difference when comparing the two different finish housings—the difference is visual only.

Next Steps

Woodward is processing an EC to change the drawing callout so that the new MIL-DTL-5541 specification is called out, but the revised drawing will also call out Woodward specification 4-09-0199. The addition of the Woodward specification will ensure that future castings will receive a clear chromate finish and not the yellow chromate finish.

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Send comments to: icinfo@woodward.com

Please reference publication 51338.



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