# **PRODUCT ADVISORY NOTICE**

### **KEEPING YOU INFORMED OF PRODUCT CHANGES**

#### To: All Customers, Sales Representatives and Distributors

**Date:** 1/11/2016

**Subject**: This Product Advisory Notice is to alert you that Grayhill encoder Series 63K will be using ball bearings with a plastic cage instead of a metal cage.

#### Description of Change

63K Encoders make use of two ball bearings (see fig. 1) that mate with the shaft to ensure high speed and high life cycles. Grayhill's bearing supplier changed a component inside their standard product from metal to plastic (see fig. 2). The supplier's qualification study is complete (see fig. 3), and it shows the new bearing design is more robust. Because the material is changing, Grayhill also intends to run our own battery of qualification tests on completed units. This full re-qualification of the new bearings will be completed in May 2016, when the 300 million cycle rotational life test is completed..

As of 5/02/16, the following tests have been completed and the units passed: Operating Temperature Range, Storage Temperature Range, and 257 million cycles of total Rotational Life. Weekly updates of qualification testing will be published on Grayhill's website at http://www.grayhill.com/about-us/product-advisory-notices/

#### Reason for Change

Grayhill's supplier changed a component inside their standard product from metal to plastic. The supplier considers this a product improvement (see page 2).

#### Effective Date

1/25/2016

#### Part Numbers Affected

63KS100 63KS100-020 63KS100-040 63KS100-060 63KS100-100 63KS100-250 63KS128 63KS128-040 63KS128-040 63KS128-180 63KS128-180 63KS128-250 63KS25 63KS25-060 63KS256-025 63KS256-025 63KS256-100	63KS32-060 63KS50 63KS50-025 63KS50-120 63KS50-120 63KS64 63K100 63K100-025 63K100-050 63K100-250 63K128 63K128-020 63K128-040 63K128-050 63K128-060 63K25	63K256 63K256-025 63K256-040 63K256-050 63K256-240 63K256-250 63K32 63K32-070 63K50 63K50-025 63K64 63K64-050 63K64-060
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#### **Action Required**

1

Unless you notify us that you want to wait until qualification testing has completed (May 2016), we will fill all open orders with encoders with the changed ball bearing starting on 1/25/2016. The standard Grayhill warranty will apply.

Please contact your Grayhill, Inc. sales associate with questions or to request more information.

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Figure 1. Ball Bearing

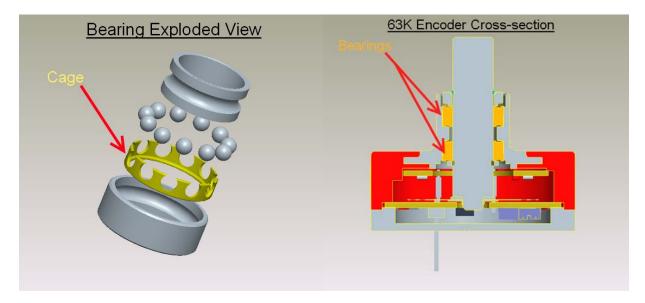


Figure 2. CAD Diagrams



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### Ball Bearing Life Test Comparison Between Iron and Plastic Retainer

TEST BEARING : 6202 (Seal: DDW, Grease : WR3) Iron Retainer vs Plastic Retainer TEST CONDITION : Rotation 11,000min-1 , Radial Load 20kgf , Outer Ring Temp 180°C

