

# RCML15 Mounting Surface Requirements

## Introduction

This application note is intended to provide additional mechanical mounting considerations to ensure proper operation of the RCML15 Encoders.

## General Characteristics of the RCML15 Encoder

- Low profile (.350" [8.9mm])
- Low cost encoder
- Provides all the signals for controlling a brushless motor, including two signals in quadrature, a reference signal, and three tracks to replace the hall effect outputs to properly commutate a brushless motor.
- Can be configured with data signals only, for use with step or dc motors.

## Description

Refer to [\(Figure 1\)](#). The encoder consists of a housing that supports the internal electronics, a centering ring, a slide for lifting and lowering the centering ring, a cover, and a hub/disk assembly.

With the slide in the full out position (installation position), the centering ring centers and lifts the hub/disk to the correct position for setting the gap. At this time, the centering ring and hub/disk are supported by the housing and slide.

### \*\*\*\*\* Caution \*\*\*\*\*


It is important that the surface onto which the encoder is mounted provide sufficient support for the housing perimeter and the slide to ensure that the encoder assembly is not distorted while pressing down the hub/disk assembly during gapping and centering.

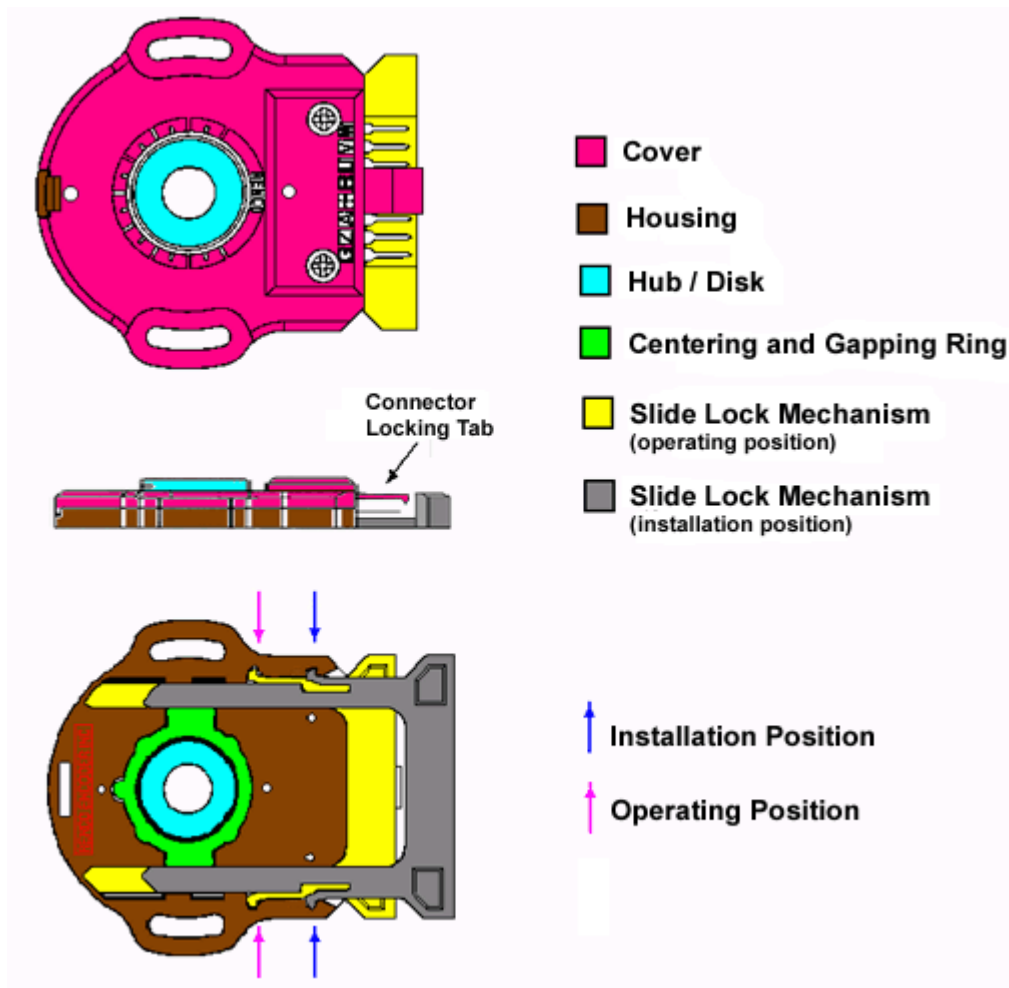
See [\(Figure 2\)](#) for details.


The surface on which the encoder is mounted should provide full support approximately 1" [25.40 mm] from the centerline of the shaft to the outer end of the RCML15 slide lock mechanism when in the operating position. This mounting surface should be flat within .002" [0.05 mm] and the mounting shaft should have a total indicated runout (TIR) of .002" [0.05 mm] maximum with respect to this mounting surface.

## Figure 1

Change: General Update

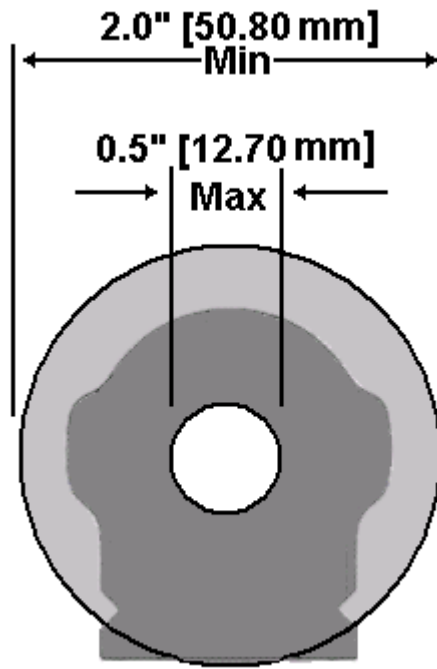
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	<b>13676</b>	Name	Dupuis	Dupuis	Setbacken	<b>D548185 - 00 - A - 01</b>			1/
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Figure 2



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