

Dodge® mounted ball bearings: end cover installation



Most ball bearings offered by Dodge are designed to accept an optional end cover. These covers can be installed by hand, without the use of a hammer or mallet. This paper will demonstrate the correct procedure for field installation of Dodge snap on covers.

Dodge ball bearing end covers are one-piece, plastic covers, which have a raised, circumferential lip located on the outer diameter of the cover. This raised lip engages a groove machined on the shaft attachment side of the housing. **Figure 1** shows an installed cover.

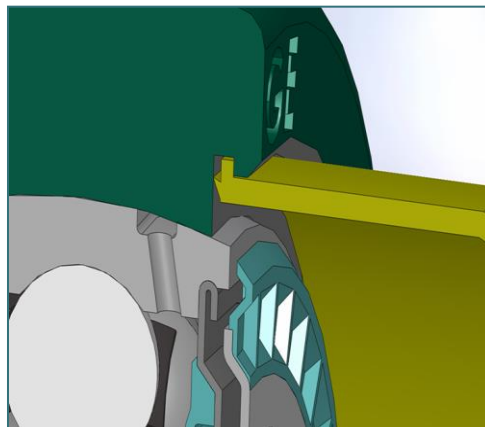


Figure 1. Installed end cover.

Dodge end covers are made with a drain hole, which provides a means for any moisture that finds its way into the cover to drain. **Figure 2** shows this feature.



Figure 2. Drain hole.

It seems intuitive to position the cover squarely against the bearing assembly and drive or force the end cover into position. This method requires considerable force and is sometimes accompanied by the use of a hammer or mallet. Forcing the cover in this manner tends to shear off the raised lip, rendering the cover useless. Hammering on the cover also tends to crack or break the plastic.

The preferred method is to position the cover at an angle, and fit the raised lip into the housing groove at one point. **Figure 3** shows the initial fitting of the cover with the drain hole positioned at the bottom.



Figure 3. Starting position of the end cover.

Once the bottom lip is engaged, angle the cap slightly to one side and continue to thread the lip into the housing groove. This is shown in **figure 4**. You may have to maintain some forward pressure to keep the lip seated into the housing groove.



Figure 4. Lip being inserted along one side.

Figure 5 is a view from the inside showing the lip starting to seat in the housing groove. Continue to seat the lip as the cap is pushed against the housing.



Figure 5. View from interior of housing.

At this point, the cover is partially installed. While pushing on the cover, use your fingers to squeeze and compress the outer diameter of the cover to continue seating the plastic lip. **Figures 6 and 7** show these final steps. More force will be required to install the last portion of the unseated lip. An audible pop may be heard when the cover fully seats.



Figure 6. Cap being pressed to allow raised lip to seat.



Figure 7. Last portion of raised lip being fitted.

Figure 8 shows the installed cover. This method requires some effort, but this is the most effective way to seat the plastic lip of the end cover.



Figure 8. Installed cover.

Once installed, the covers are retained very securely. In **figure 9** the weight of the housing is supported by the cover. It is difficult to remove the cover without permanently damaging it.



Figure 9. Installed cover.