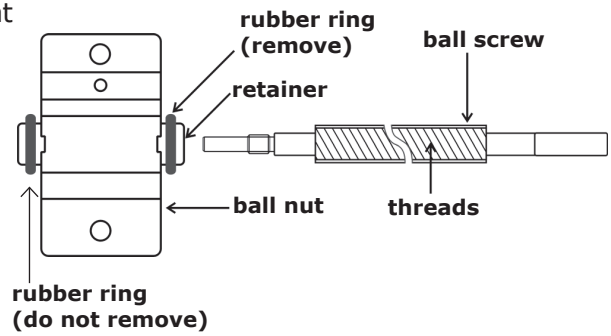
BALL NUT-AND-SCREW ASSEMBLY INSTRUCTIONS

WARNING! IF THE RETAINER IS PULLED OUT OF THE BALL NUT, THE BALLS WILL FALL OUT AND CANNOT BE REPLACED! AVOID THIS BY USING CAUTION WHEN FOLLOWING ALL INSTRUCTIONS.

Follow the steps below for proper assembly:
(Use **DIAGRAM 1A** for reference)

DIAGRAM 1A



1. Remove one of the rubber rings carefully so that the retainer does not fall out of the ball nut.
2. Slip retainer over end of ball screw, pressing firmly against the threads.

Keep pressure on retainer and against threads to avoid balls from falling out.

3. Slide ball nut over retainer to threads and 'spin' ball nut onto threads.

Maintenance Tips

Lubrication Hints: Before the ball nut/ball screw is put to use, thoroughly clean the ball screw and apply lubrication along its entire length (the ball nut does not require preparation or cleaning). The nut itself is used to distribute the lubricant. Various oils and greases, which are customarily specified for roller bearings, can be used as lubricants. Lubricants containing special additives such as graphite and MoS_2 (Molybdenum disulfide) should be avoided. As a result of axial movement between the nut and the screw, the loss of lubricant will be more pronounced than in the case of a roller bearing. Therefore, there are no means to provide lifelong lubrication.

Lubrication with Oil: For faster revolutions of the screw (>500 RPM), an oil lubricant should be used so as to decrease the rise in temperature. Depending on your working conditions, the drive should either be connected to a central lubrication system or re-lubricated every 40-60 hours of usage.

Lubrication with Grease: For revolutions under 500 RPM, a grease lubricant can be used. Grease lubricants are advantageous because they do not need to be applied as frequently as oil lubricants. It is recommended that a grease lubricant be reapplied every 500-1000 hours of usage. If possible, Lithium soap greases KP2K per DIN51825T3 should be used, and half the volume of the nut should be filled with the lubricating grease.

Lubricated ball screw drives must be protected from dust, chips and moisture.

Oil Viscosity Classes for DIN51517T3 CLP ISO-VG for 16mm Ball Screw		
Average RPM	***Recommended ISO-Viscosity Class at 40° C***	***Required Viscosity at 30° C***
20	ISO VG 460	±875
100	ISO VG 220	±360
500	ISO VG 46	±66
1000	ISO VG 22	±36
1500	ISO VG 15	±28