

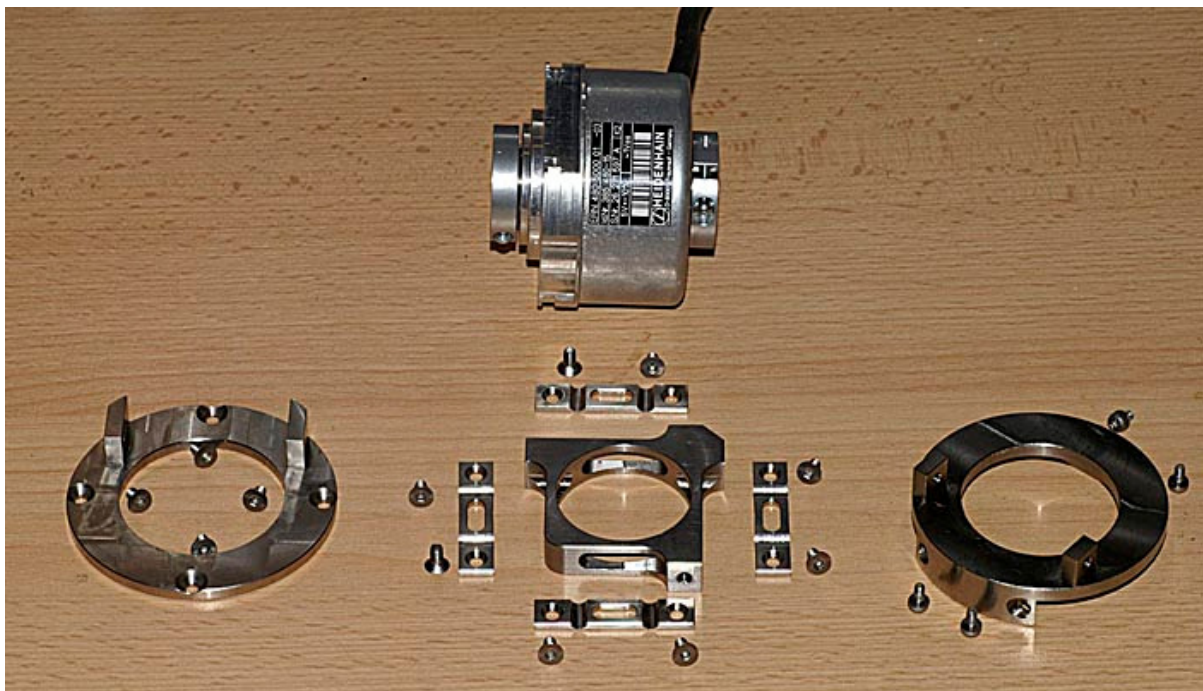
Installation Guide for TDM Encoder Coupling

The Heidenhain ERN-480 encoder of the second version of Telescope Drive Master (TDMv2) has been equipped with a new type of coupling which provides remarkably more rigid and temperature compensated mechanical connection against torsion but, at the same time, allows springy movements of the encoder stator in line with itself compensating small eccentricity of the encoder shaft. In this way, control-hysteresis of TDM system becomes tighter even in cold weather (under 0°C) as well, when starting torque of the encoder shaft will be higher due to the more rigid gum gaskets. Although aluminium would be lighter, the coupling system has been made by stainless steel decreasing flexure of the parts. For providing smooth operation, internal sides are polished.

You can find this coupling as one assembled unit in a small plastic bag together with six additional screws in it. As you can see, two screws among installed ones are black (not shiny steel).

You can see all the three main parts of this coupling under the Heidenhain encoder in the picture below (from left to right):

1. Front part
2. Compensator with 4pcs of flat holed springs
3. Back part



To install the coupling please remove two black screws completely at first and release the rest of the screws just a little bit.

In this way, you can remove the front part of the coupling and the flat springs with the compensator will be loose on the back part.

Now, please remove the previous version of the encoder coupling from the Heidenhain encoder removing four torch screws and, after that, using the same four torch screws, please install the back side (with compensator on it) of the new coupling onto the encoder.

Please install the encoder adaptor onto the RA shaft of your telescope mount according to the adapter installation guide.

Now, you can fix the front part of the coupling onto the previously installed adaptor stator using four screws from six attached ones in the plastic bag.

Please push the encoder up onto the shaft gently until its impact and tighten its fixing clamp on the back side using torch screw driver.

IMPORTANT!!!

You have to push it until impact ("click") but do NOT press it! The compensator (middle part of the coupling) has to be able to move quite easily between the front and back parts but without any slackness or play.

Now, please tighten the front side clamping ring of the encoder via any holes of flat springs.

Finally, install two missing screws (but please use the rest of the attached 6 pcs of stainless steel screws, instead of the originally used two black ones) and tighten all the six screws well in the flat springs.

Please find the encoder unit installed with the new coupling on an EQ6 mount below.

