EXOS 2

MOTORS KIT

ASSEMBLING INSTRUCTION

This document describe how to install the motor kit on a Exos2 mount and how to connect them to the Nebula GoTo System controller.

The procedures for the softwares settings and usage are reported in the Nebula GoTo System manual. A careful reading of this manual will enable the use of the mount safely and with the maximum satisfaction.

The kit design and its configuration could be subject to modifications, without prior notification, based upon designer's improvements and the requests, if applicable, by the mount users.

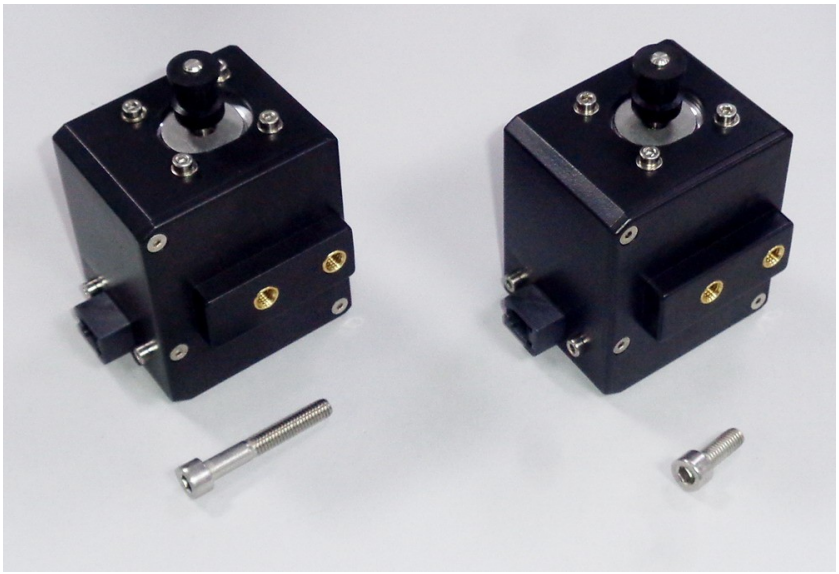
Packing Content

The Nebula Go To System comes in a box including the controller box, the keypad, the RA and DEC motors with all the accessory required for the assembling on compatible mounts. Below is shown the package content with the corresponding item list

Component List	
• Nebula GoTo System Controller • Control Keypad • RA / DEC motors • RA / DEC pulleys • RA / DEC timing belts	• Keypad connecting cable • RA motor cable = 80 cm length • DEC motors cable = 115 cm length • Power supply • M6 x 16 DEC motor fixing screw • M6 x 40 RA motor fixing screw

2 Assembling instuctions

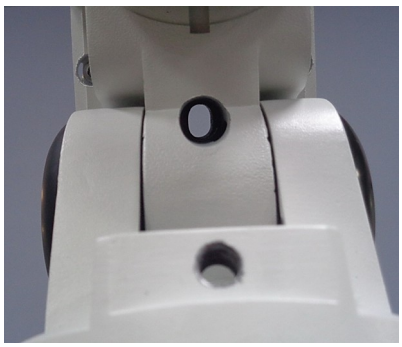
Take out the two motors from the packaging and prepare them with the corresponding fixing screws: the RA motor assembling require the longer screw (M6x40 mm) while the DEC motor require the shorter (M6x16).



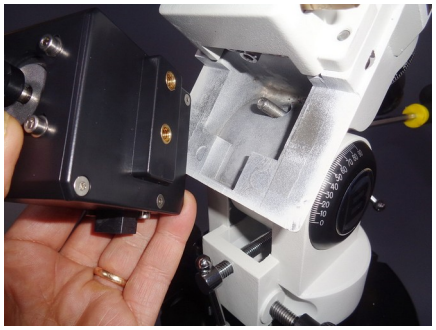
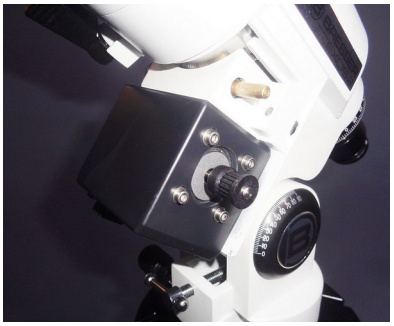
A comfortable assembling operation is accomplished with a mount as free as possible. Before to proceed with the below described operations is suggested to remove the counterweight, the counterweight bar, and the axis movement knobs, leaving the mount with the RA and DEC axis pinions free, ready for the motors assembling, as shown below.

RA motor assembling

Step 1:
With the help of a M5 key insert the longer M6x35 screw from the mount rear bottom


Step 2:
Fix the motor screwing the bolt into the lower thread available on the RA motor positioned with the cable connector toward the ground and the motor pulley side by side with the RA axis pinion.

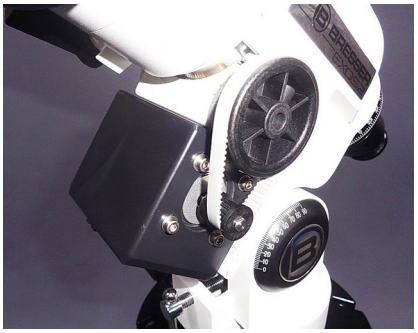




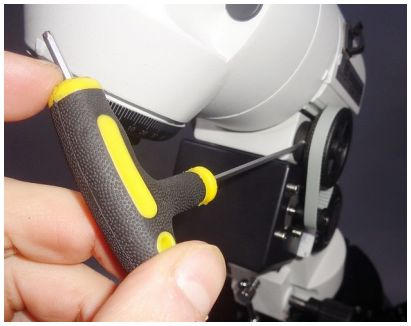
RA pulley and timing belt assembling

Step 1:
The pulleys comes with a fixing screw grain, The correct installation is accomplished positioning the screw grain matching with the RA pinion plane side. The pulley must be inserted together with the timing belt as shown in the picture..



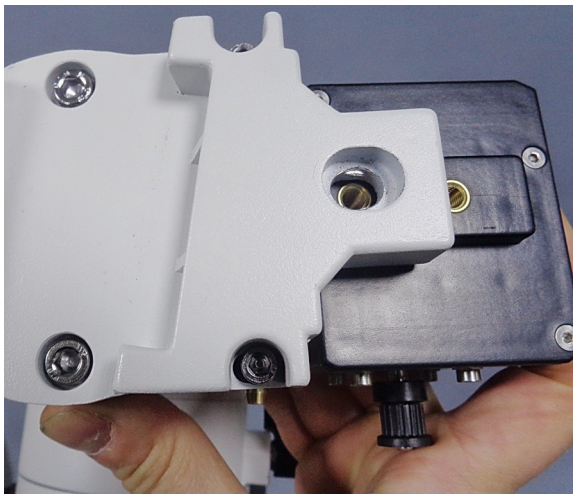
Step 2:
Tight the screw grain on the plain to allow the pulley firm fixing avoiding motion slip.



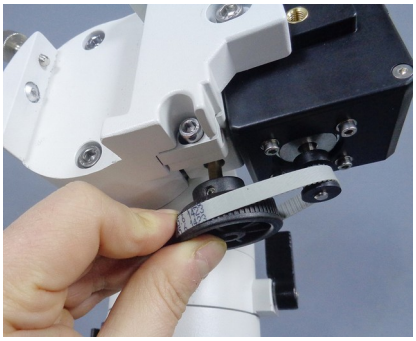


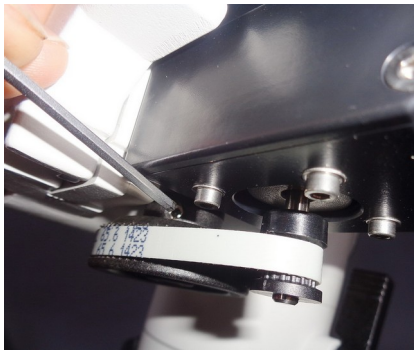
DEC motor assembling

Step 1:
The DEC motor assembling point is available on the mount telescope saddle. The motor can be fixed with the M6x16 bolt.



Step 2:
The pulleys comes with a fixing screw grain, The correct installation is accomplished positioning the screw grain matching with the DEC pinion plane side.
The pulley must be inserted together with the timing belt as shown in the picture..

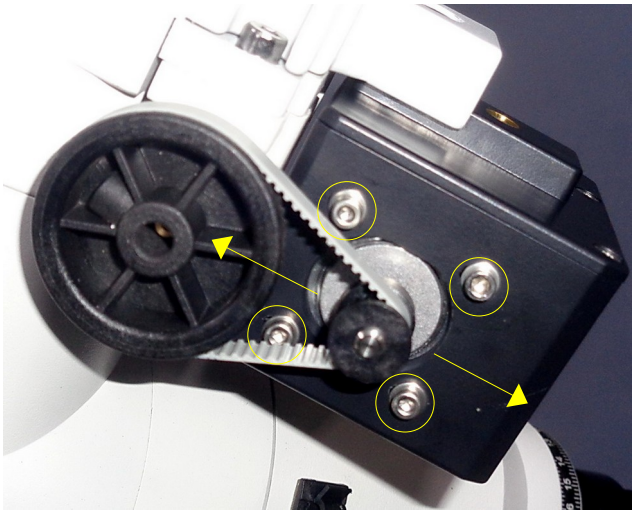


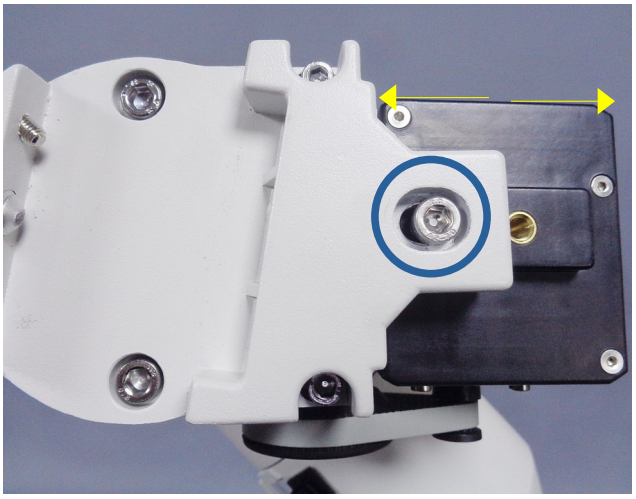


Timing Belt fine tuning

After the motor installation it is possible that the timing belts tension may require an adjustment. This tuning can be accomplished in two way

1. **Loosening the motor fixing bolt**
   Slightly loosening the motor fixing bolt and moving the motor itself along timing belt axis,
2. **Loosening the four screws that fix the motoron the plastic protective carter**
   Slightly loosening the four screws that fix the motor on the plastic protective carter and moving the motor itself along timing belt axis





Motor cable connecting

The kit comes with two cables with different length:
The longer cable is for the DEC (115 cm), the shorter cable is for the RA (80 cm).
The reason for the different length is to avoid cable strething during the DEC rotation.