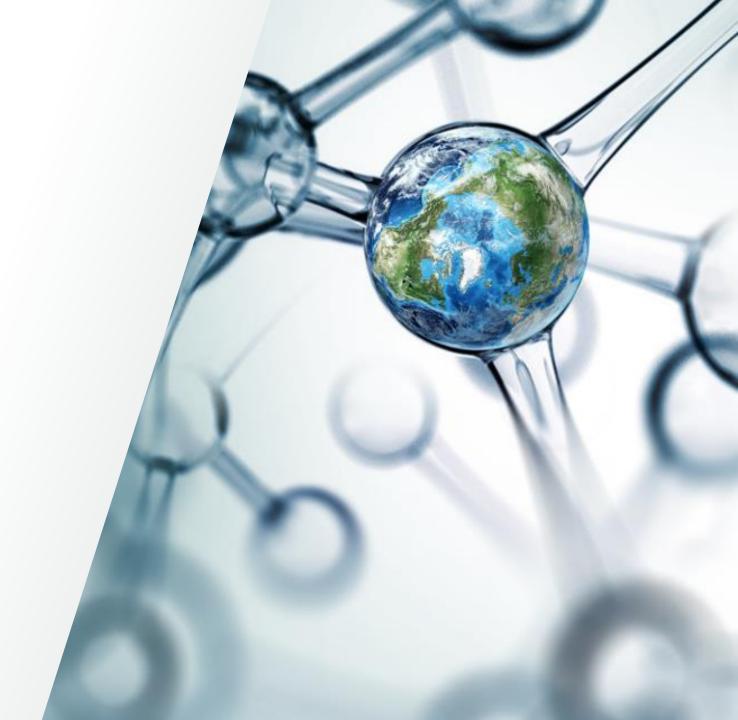
# Thermo Fisher SCIENTIFIC

## Field Repair Procedure

DT00284 Field Repair
Separate / Assemble Gimbal from
Nozzle Mover XZ



The world leader in serving science

#### **Revisions**



Revision	Change Description	Changed By/Date
А	New Release	ABC 01/01/18



#### Why are you doing this operation?

#### **Symptoms**

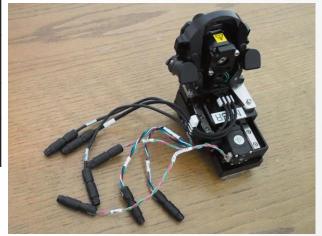
You have determined that you wish to replace a Gimbal, or an XZ Mover, or both.

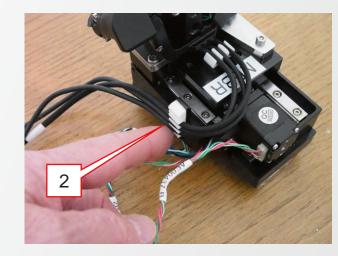
#### **Failed Tests**

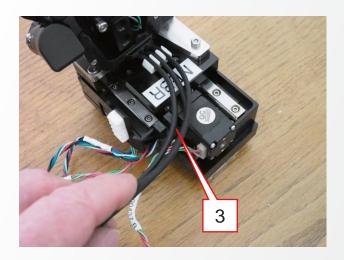
1	See DT00261 for Removal of Gimbal / XZ from Bigfoot, picture at right shows the Gimbal / XZ removed.
2	Once you have removed the combined assembly, stop with that procedure.
3	This procedure will tell you how to separate the Gimbal from the XZ
4	Then, you can replace the Gimbal or the XZ or both, depending on what you want to do.
5	Then, this procedure will tell you how to put the bits back together, using just the bits you prefer. We won't tell you which bits you prefer, you probably know that much already, so we will just refer to them generally, by their names.
6	After all this, you can return to DT00261 for re-assembly.
7	OK, Let's go!

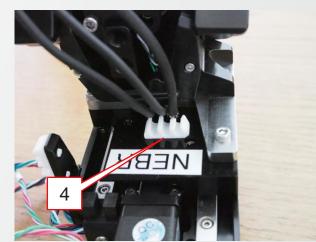


1	Start as in upper left picture
2	Unclip the three wire bundles from the arm-mounted wire/tubing clip, upper right
3	Like this after unclip, lower left
4	Unclip the three wire bundles from the carriage-mounted wire/tubing clip, lower right

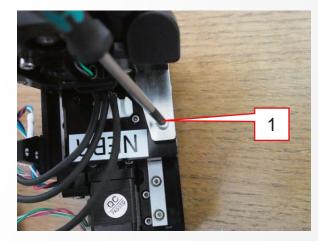


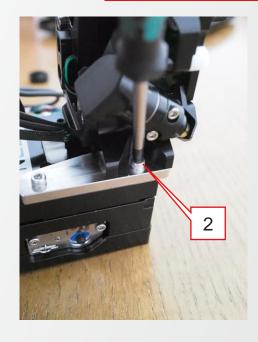


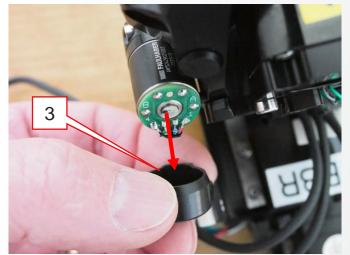


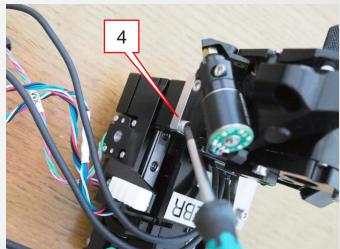


1	Loosen fully, do not remove the first captive screw fastening the Gimbal assembly to the XZ stage
2	Loosen fully, do not remove the second captive screw fastening the Gimbal assembly to the XZ stage
3	It may not be necessary, depending on the beautifulness of your ball-driver, but if you so desire, remove the cap from the top of the right Gimbal Actuator to allow better access to the third screw.
4	Loosen fully, do not remove the third captive screw fastening the Gimbal assembly to the XZ stage

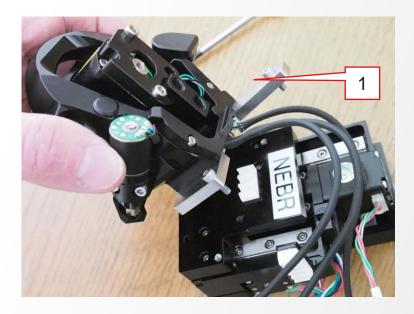




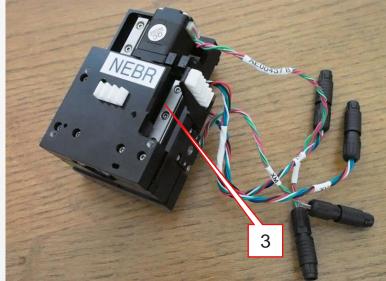




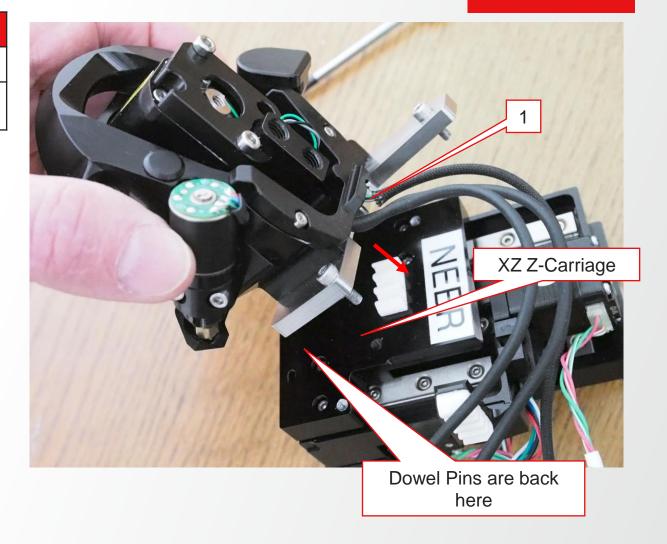
1	Remove the Gimbal assembly from the XZ assembly
2	Here is the Gimbal
3	Here is the XZ
4	Re-assembly is the reverse of dis-assembly,



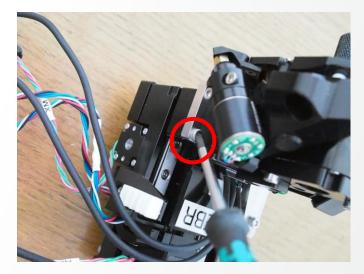


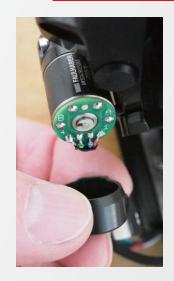


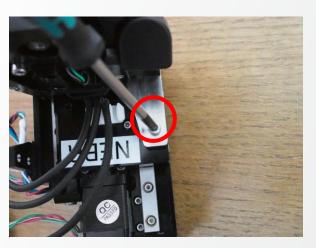
1	Place the Gimbal in position on the XZ.
2	Insert the two dowel pins protruding from the rear of the Gimbal into the matching hole and slot in the front face of the XZ Z-carriage



1	Tighten the three captive screws
2	Replace the Actuator Cap, if removed earlier

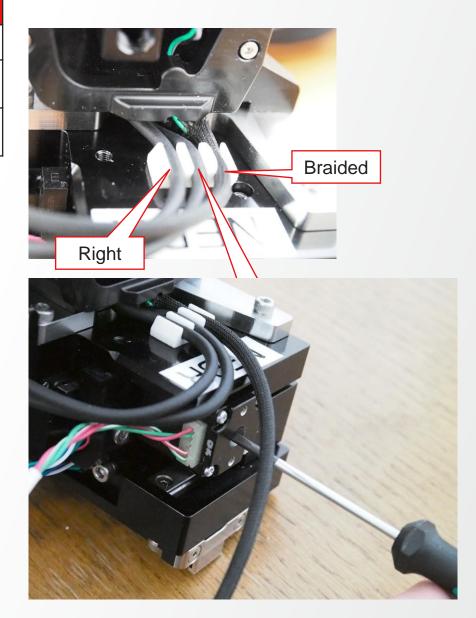








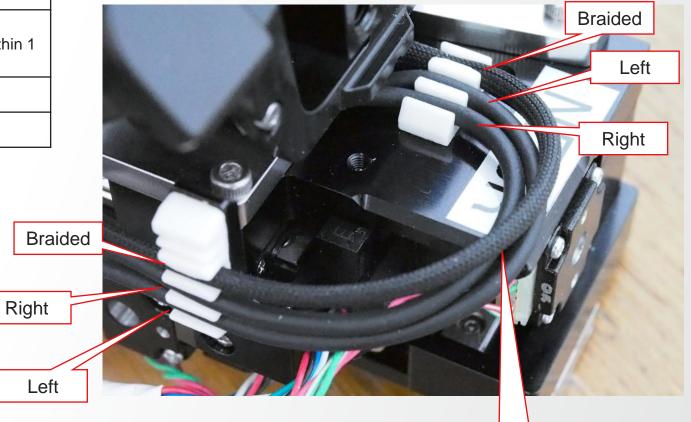
1	Clip the three wire bundles into the carriage-mounted wire/tubing clip.
2	The braided-sleeve cable goes closest to the Gimbal Mounting Bracket.
3	The Actuator cables stay uncrossed, left on the left, right on the right.  (The picture is upside down)



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## **Separate Gimbal from XZ**

1	Clip the three wire bundles into the arm-mounted wire/tubing clip. The order changes slightly, see the picture
2	Ensure the service loop size (Amount of curvy arch in the wires) comes just to the top of the Z-Carriage when the Z-carriage is within 1 mm of the top of travel.
3	Not too short!
4	Not too long!



Service Loops correct shape!