

Prior Scientific Help Guides and Installation Instructions

UPDATED 17 APRIL 2015

# H117, H101A and ES111 Stage Limit Adjustment

**Instructions: H117** *(requires 2.5 mm hex key, small flathead screwdriver, 1mm hex key)*

**Y Axis:**

- 1) Ensure the unit is not connected to the controller
- 2) Unscrew the three hex nuts holding the motor cover (indicated in Fig. A)
- 3) Remove the motor cover
- 4) Unscrew the three flat head screws (indicated in Fig. B)
- 5) Place a finger under the motor (indicated in Fig. C)
- 6) Gently push the drive box cover under and past the motor cover. The box will turn and pop free of the motor.
- 7) Lift the drive box cover being careful not to catch any cables
- 8) Lay the drive box cover down next to the stage, being careful not to extend the cables connected to the 25 way connector.
- 9) The Limit Switches will be visible (indicated in Fig. D)
- 10) Unscrew the two flat head screws of the limit to be adjusted
- 11) Push the limit to the position required
- 12) Tighten the flat head screws to fix the limit in position
- 13) Place the cover down from above ensuring all cables are inside.
- 14) Push the drive box cover down and under the motor cover until it returns to the original position.
- 15) Ensure no cables have been trapped by the cover
- 16) Replace and tighten the three flat headed screws
- 17) Replace the motor cover ensuring no cables are captured
- 18) Tighten the hex nuts to fit the motor cover.

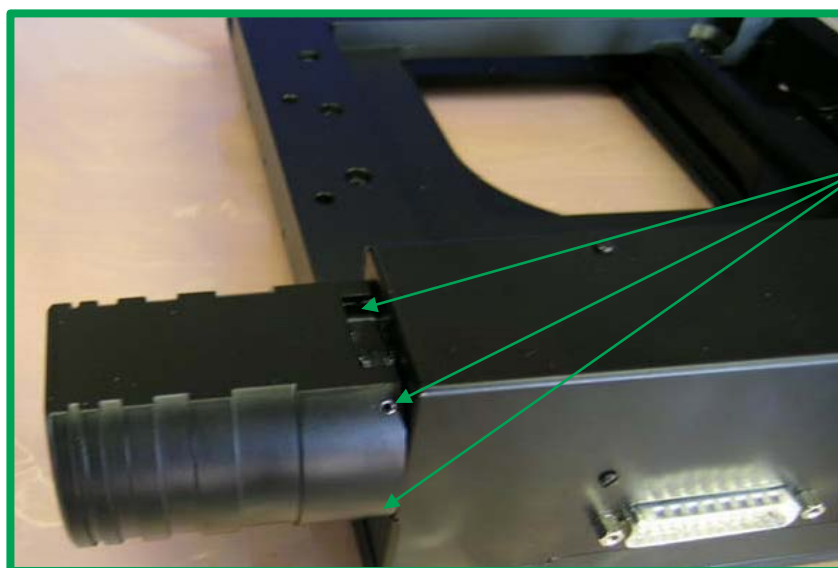


Fig. A:  
Motor cover hex nuts

Fig. B:  
Drive cover fixing  
screws

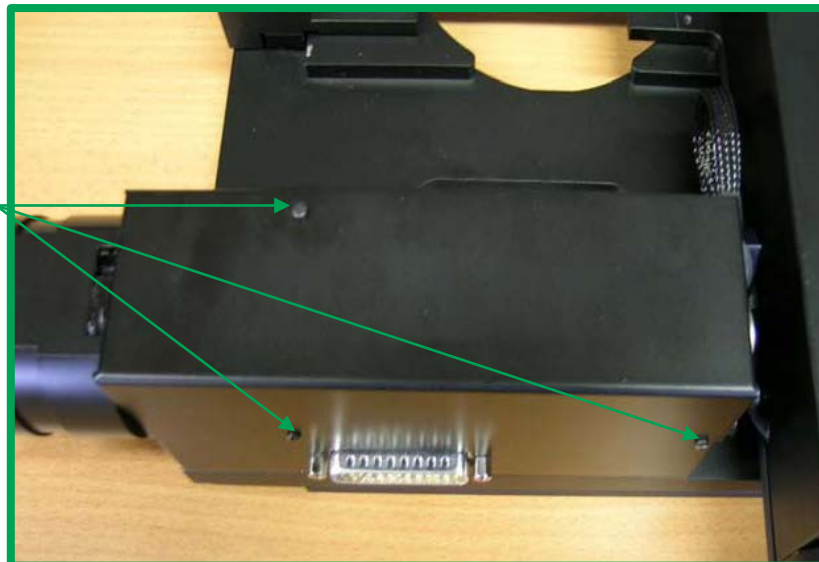


Fig. C:  
Removing the drive  
box cover

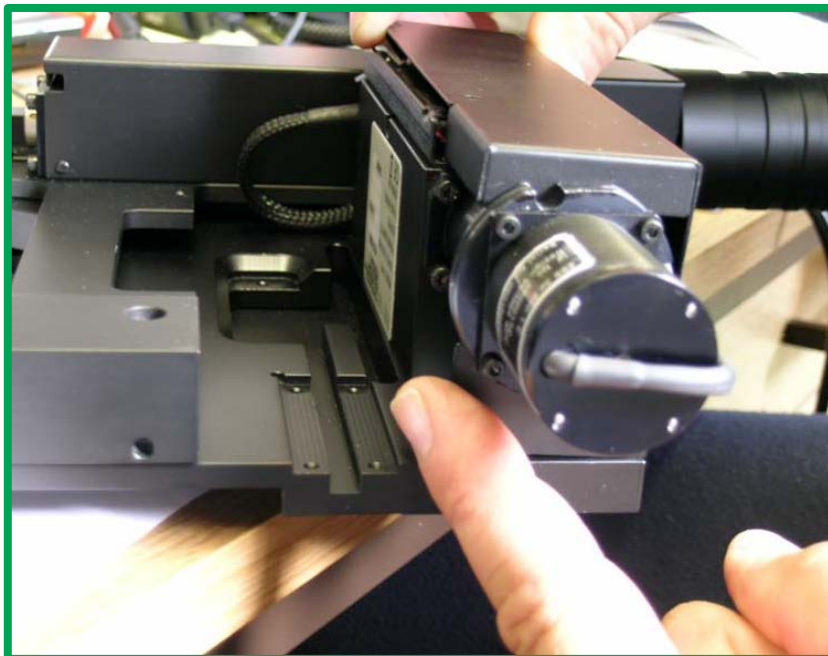
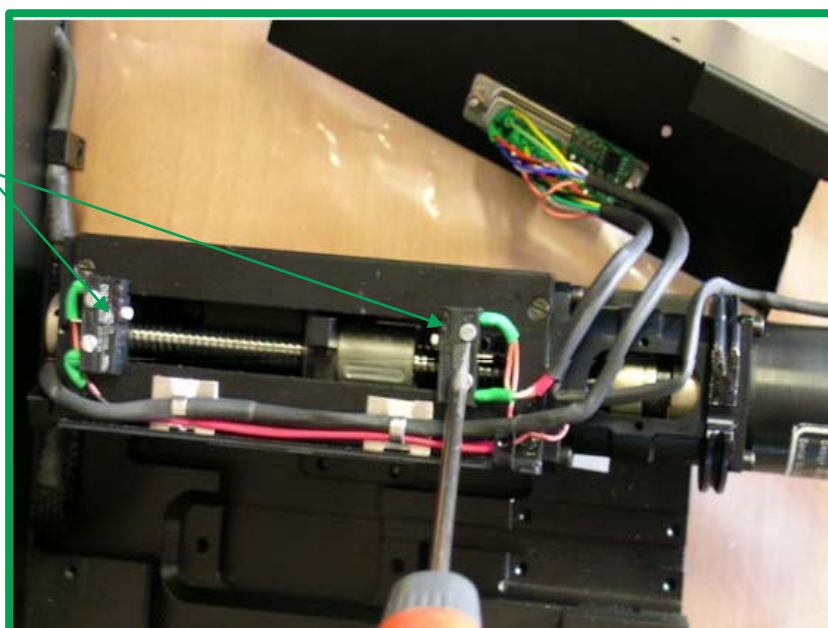


Fig. D:  
Limit switches



## X Axis

- 1) Ensure the unit is not connected to the controller
- 2) Move the stage axis so that there is access to the cable holder and screws (indicated in Fig. E)
- 3) Unscrew the four flat head screws, and loosen the cable holder (indicated in Fig. E)
- 4) Place a finger under the right hand side of the drive box cover near the motor cover and lift the cover vertically off.
- 5) The limit switches will be visible (indicated in Fig. F).
- 6) Unscrew the two flat head screws of the limit to be adjusted.
- 7) Push the limit to the position required
- 8) Tighten the flat head screws to fit the limit in position.
- 9) Replace the cover ensuring that the drive cable (indicated in Fig. F) exits the cover via the provided hole.
- 10) Replace and tighten all four screws and the cable holder.

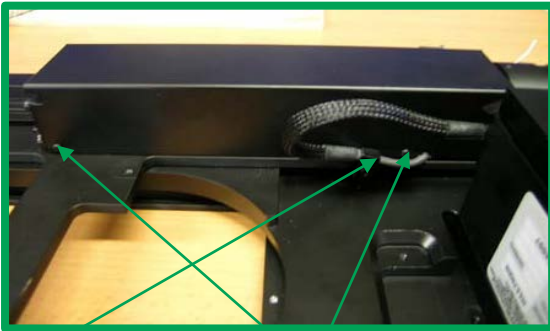


Fig. E:  
Cable holder  
and drive cable

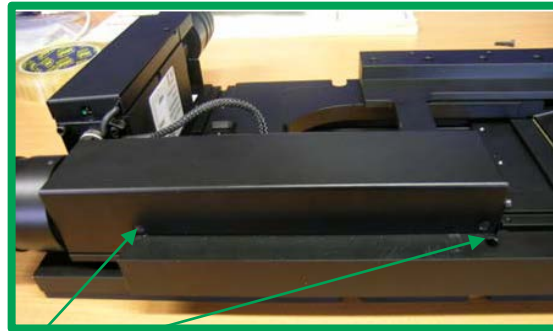
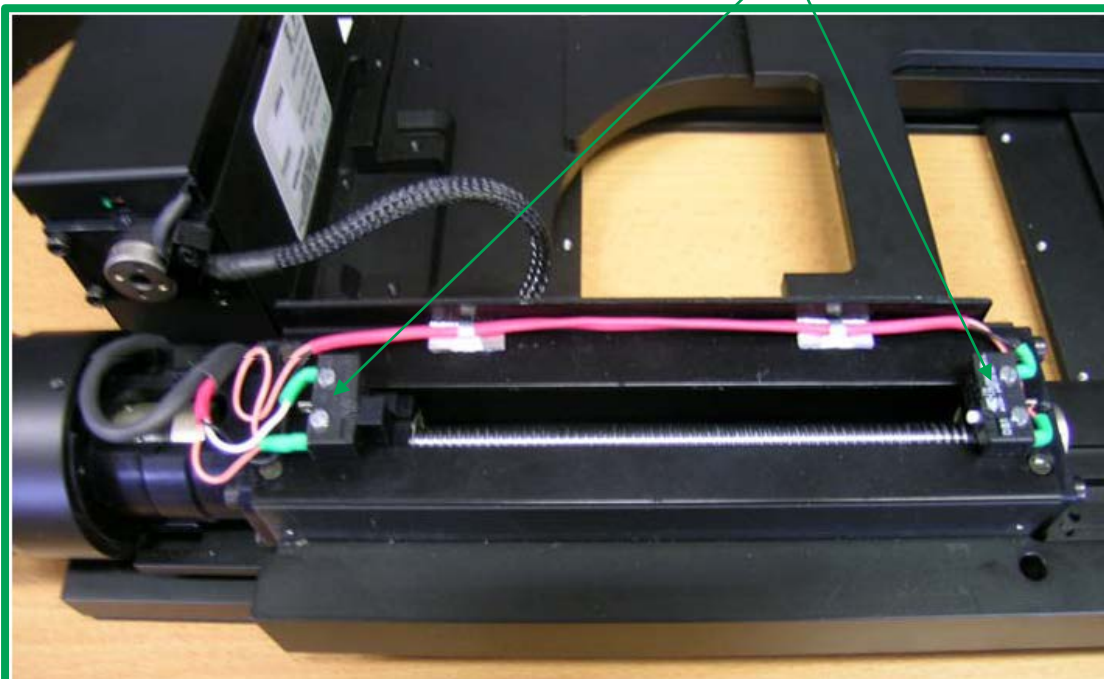


Fig. E:  
Fixing Screws

Fig. F:  
Limit Switches



## H101A (require small flathead screwdriver)

### Y Axis:

- 1) Ensure the unit is not connected to the controller
- 2) Unscrew the three flat head screws (indicated in Fig. A)
- 3) Lift off the drive box cover
- 4) Limit switches will be visible (indicated in Fig. B)
- 5) Unscrew the two flat head screws of the limit to be adjusted
- 6) Push the limit to the position required
- 7) Tighten the flat head screws to fix the limit into position
- 8) Replace the cover and ensure no cables are captured
- 9) Replace and tighten screws



Fig. A:  
Fixing Screws

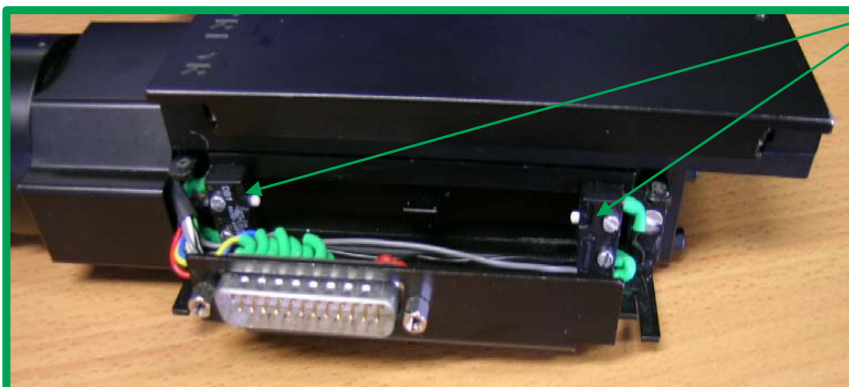


Fig. B:  
Limit Switches

## X axis

- 1) Ensure the unit is not connected to the controller
- 2) Unscrew the three flat head screws (indicated in Fig. C)
- 3) Lift off the drive box cover
- 4) Limit switches will be visible (indicated in Fig. D)
- 5) Unscrew the two flat head screws of the limit to be adjusted
- 6) Push the limit to the position required
- 7) Tighten the flat head screws to fix the limit in position
- 8) Replace cover and ensure no cables are captured
- 9) Replace and tighten screws

Fig. C:

Cover screws

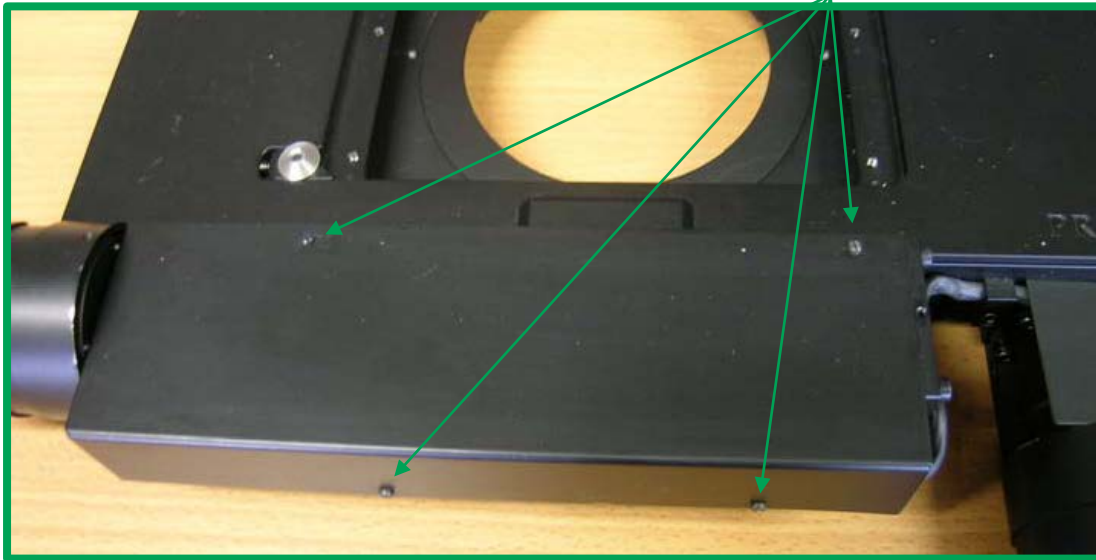
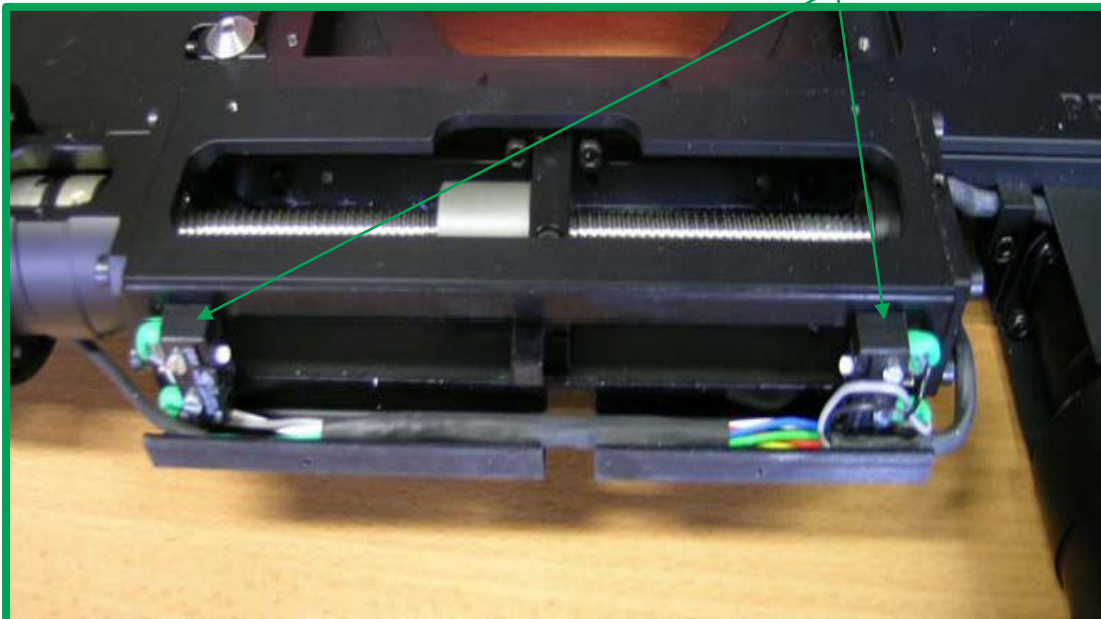


Fig. D:

Limit switches



**ES111** (requires 2mm hex key, small flathead screwdriver, 1.5 mm hex key)

**Y Axis**

- 1) Ensure the unit is not connected to the controller
- 2) Unscrew the two flat head screws (indicated in Fig. A)
- 3) Unscrew the three hex nuts (indicated in Fig. A)
- 4) Place fingers under the drive box (indicated in Fig. B)
- 5) Lift off drive box cover, until released by stage
- 6) Limit adjust hex screws and limit adjust bars will be visible (indicated in Fig. C)
- 7) Unscrew the hex nut for the limit which is to be adjusted
- 8) Push the limit adjust bar to the position required
- 9) Tighten the hex nut head screws to fit the limit in position
- 10) Place cover over the cable connector first and push down to clip back into position (ensure no cables are captured)
- 11) Replace and tighten screws and hex nuts

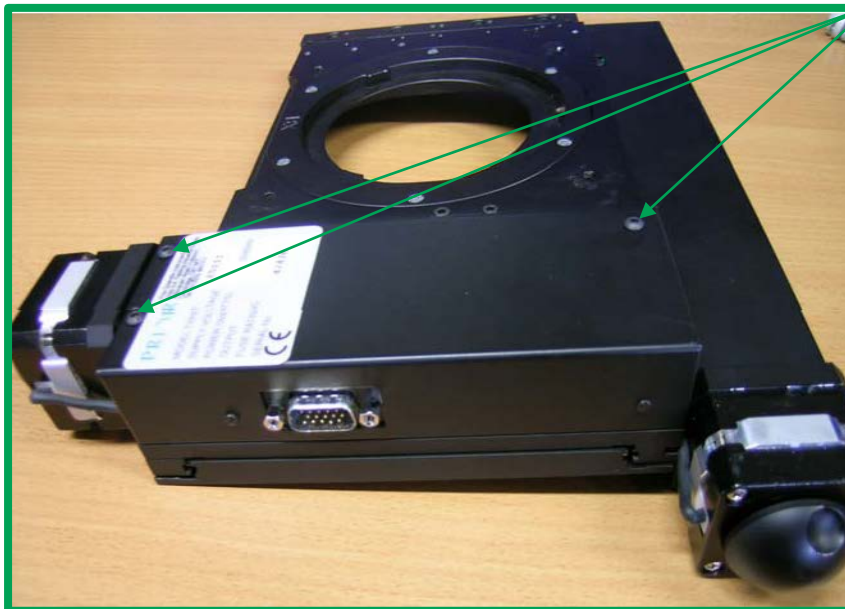


Fig. A:  
Limit switches

Fig. A:  
Fixing screws



Fig. B:  
Removal of Y axis  
drive cover

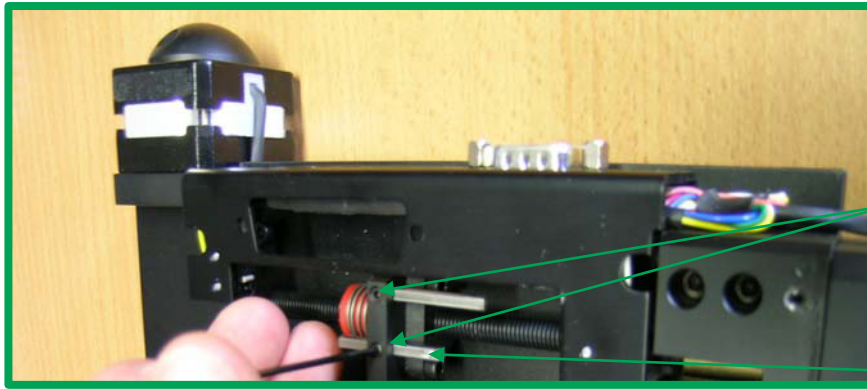


Fig. C:  
Limit adjust hex nuts

Fig. C:  
Limit adjust bars

### X Axis

- 1) Ensure the unit is not connected to the controller
- 2) Unscrew the three hex nuts (indicated in Fig. D)
- 3) Ensure the bottom plate of the stage does not overhang the drive box cover.
- 4) Place fingers under drive box cover (indicated in Fig. E)
- 5) Lift off drive box cover.
- 6) Limit adjust hex screws and limit adjust bars will be visible (indicated in Fig. F)
- 7) Unscrew the hex nut for the limit which is to be adjusted
- 8) Push the limit adjust bar to the position required
- 9) Tighten the hex nut head screws to fit the limit in position
- 10) Place cover over the cable connector first and push down to clip back into position (ensure no cables are captured)
- 11) Replace and tighten screws and hex nuts.

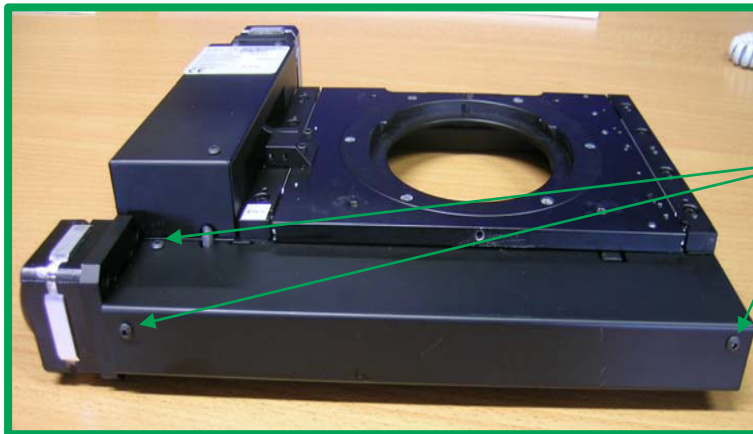


Fig .D:  
Fixing hex nuts

Fig .E:  
Removing drive box cover

Fig .F:  
Limit adjust hex nuts

Fig .F:  
Limit adjust bars

