



# AUTO BRAKE KIT

Designed as a failsafe to the manual brakes, the auto brakes help to prevent movement of the platform when elevated. Fitting of the kit will allow removal of the stabilisers making Pop-Up+ as easy to operate, stow and transport as its little sister product **Pop-Up**

## Introduction

The **Pop-Up+** Auto Brake Kit is a retrofit kit for the front castors of the machine. When the platform is raised to 9mm, it releases the auto brake system. This system automatically applies a brake to both front castors and will release only when the platform is fully lowered.

**WARNING: regardless of the auto brake system, the rear castors' manual brakes must always be locked prior to entering the platform.**

These instructions have been produced to enable suitably trained and experienced personnel to fit the **Pop-Up+** auto brake kit. Fitting the retro fit braking system requires two persons.

Before commencing the work, make sure that you have all parts and necessary tools at hand to complete the task.

Carry out a full risk assessment to ensure your safety.

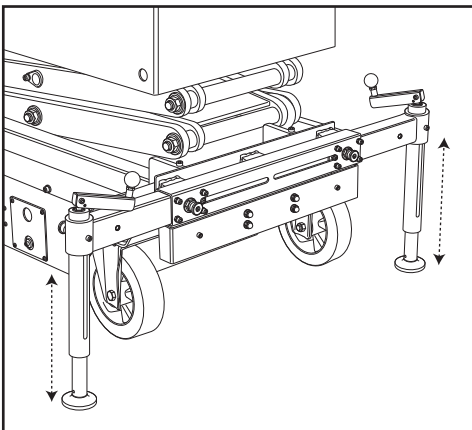
## Work Area

It is preferable that you use the **Pop-Up+** work bench. If this is not available, then a suitable work bench which is capable of supporting the unit's weight and allows access to all sides of the **Pop-Up+** can be used.

If no work bench is available, the modification can be carried out at ground level, using the stabilisers to "jack" the unit's castors off the ground. **However, if working at ground level, the stabilisers should be removed at the end of the task rather than at the beginning.**

## Preparation

Make sure that the unit is switched OFF and that the control pendant is removed from its cage mounting holster so as to be in easy reach.

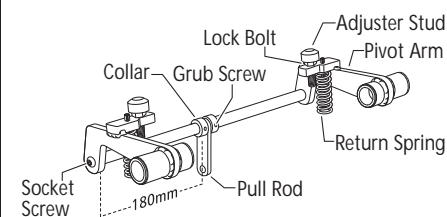


Place the unit on the work bench, lock the rear castor brakes and jack the base up so that it is not being supported by the front castors.

If working at ground level, deploy all four stabilisers and jack the unit up so that all castors are clear of the ground.

## Upper Brake System Assembly

Slide the pull rod on to the cross tube, then slide a collar onto each end of the cross tube bringing both collars in contact with the pull rod.



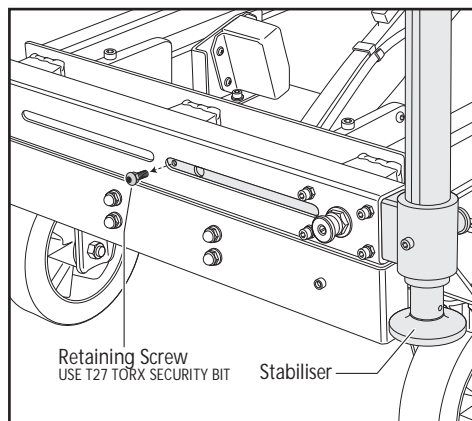
Fit the left hand and right hand pivot arm assemblies, with springs innermost, and secure in place with the 8mm button head socket screws. Use a 5mm hex key and tighten to a torque of 24nm.

Position the left hand collar (as viewed from the front of the unit, see illustration) exactly 180mm from the inner face of the left hand pivot arm. Using a 3mm hex key tighten the collars' grub screws to a torque setting of 7.5nm.

## WARNING!

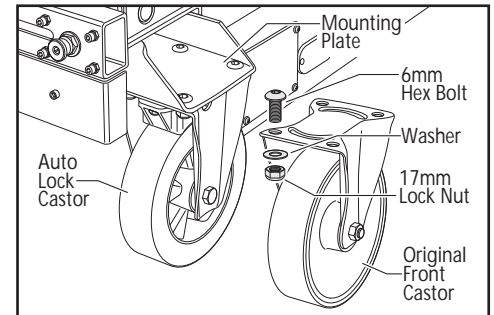
Failure to position the pull rod as described will cause it to foul and damage part of the unit's wiring system.

## Stage 1: Stabiliser Removal



Remove each stabiliser one at a time. Unscrew the retaining screw using a No T27 Torx security bit driver then slide the stabiliser out. In case they are required in the future, re-fit the retaining screws to the stabilisers.

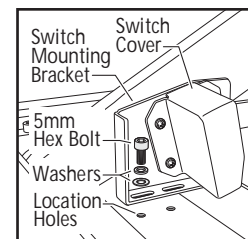
## Stage 2: Removal and Refit of the Front Castors



Using a size 6 hex key and a 17mm spanner, loosen and remove the four securing hex bolts and lock washers holding the original front castors in place. Fit the braked castors using the original hex bolt, washer and nut to a torque of 47nm.

## Stage 3: Replacing the Delay Switch Cover and Delay Switch Mount Bracket

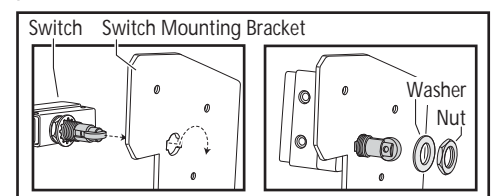
Before commencing, lower the unit so that all four castors are on the work bench (DO NOT lower the unit if working at ground level). Next, switch the unit ON and raise the platform until the maintenance props can be deployed. DO NOT work on this unit unless the maintenance props are correctly deployed, if in doubt, refer to the manufacturer's manual. Once deployed, lower the platform until supported by the maintenance props, then switch the unit OFF.



Mark the position of the switch mount bracket using chalk or a suitable marker. Using a 5mm hex key, loosen and remove both bracket retaining hex bolts

complete with washers and place somewhere safe.

Using a No. 1 Pozidrive screw driver, loosen and remove the three Pozidrive head screws retaining the switch cover and place somewhere safe.



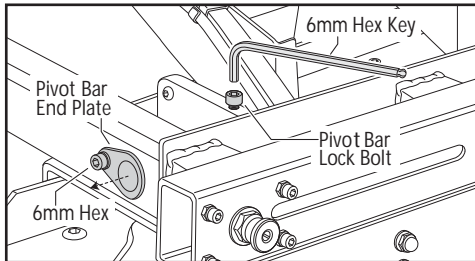
Loosen and remove the delay switch retaining nut complete with lock washer then turn the switch anticlockwise 90 degrees and move clear of the switch mount bracket.

The original bracket and switch cover should be discarded.

Insert the delay switch into the new modified switch mount bracket in the same way and secure in place with the lock washer and nut.

Fit the new modified switch cover ensuring that the Pozidrive screws are correctly fitted. Refit the assembly to the **Pop-Up+** so that the bracket aligns with your position markings, then secure in place with the hex bolts and washers to a torque setting of 16nm.

#### Stage 4: Pivot Bar Removal

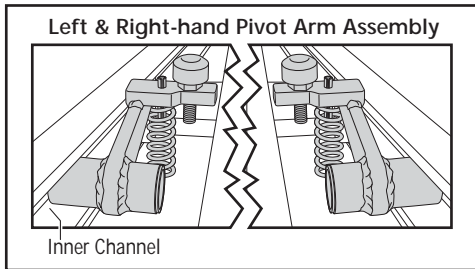


Using a 6mm hex key, loosen the two pivot bar lock bolts by one and a half turns (counter-clockwise) DO NOT remove.

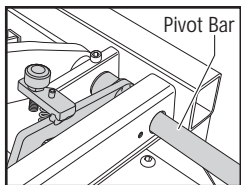
Using a 6mm hex key, loosen and remove the pivot bar end plate lock bolt with washer and place somewhere safe.

Using a suitable drift, remove the pivot bar from the unit. The use of a suitable jemmy bar will help in the removal of the pivot bar.

#### Stage 5: Pivot Arm Assemblies Positioning and Fitting

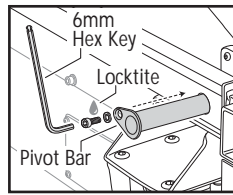


The pivot arm assembly needs to be positioned under the scissor bars, on top of the base and within the inner channels. Insert the pivot arm assembly under the scissor bars, facing the correct way but at an angle to allow feeding into the inner channels. Straighten the pivot arm assembly's position so that both pivot arms are within the left and right inner channels then slide it forward so that they will align with the pivot bar. Make sure that the pull rod is positioned downward through the base.



Re-insert the pivot bar, taking care to align the pivot arm assembly so that its bushes are not damaged by the end of the bar. To assist in aligning the scissor assembly with

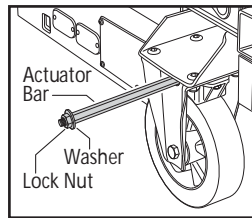
the pivot bar's location, use suitable jemmy bars to slightly raise and manoeuvre the scissor assembly. The help of an assistant will make this a simple procedure, however, DO NOT allow anyone to place themselves in danger should the unit close during manoeuvres.



Once the pivot bar has been correctly repositioned, secure by replacing the pivot bar end plate lock bolt with washer, using a 6mm hex key. Apply locktite to the lock bolt prior to fitting.

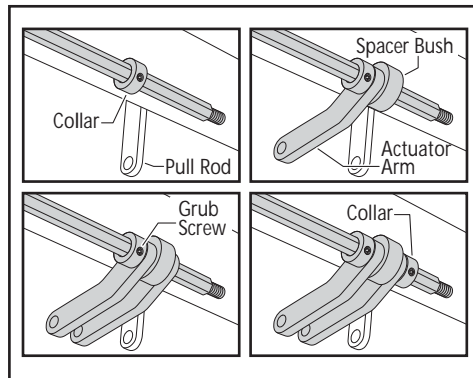
Using a 6mm hex key, tighten the two pivot bar lock bolts to a torque setting of 39nm.

#### Stage 6: Hexagonal Brake Actuator Bar and Linkage

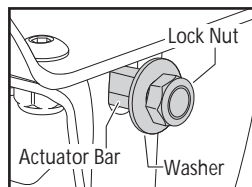


Fit the washer and lock nut to the trailing end of the actuator bar. Insert the leading end of the bar into and through the hexagonal slot located at the side of the castor mount. Push the bar half way in.

You can now loose-fit the actuator arms, spacer and collars as shown in the illustration.



Start with a collar ensuring that the grub screw is facing forward. Slide the first actuator arm on ensuring it is the correct way round and horizontal, then the spacer bush, the second actuator arm and finally the second collar.

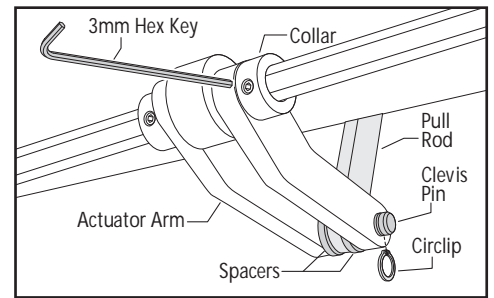


Push the bar fully in and through the opposite castor, then using a 17mm spanner, secure in place with the washer and lock nut, hand tight.

#### Stage 7: Actuator Arm and Pull Rod Connection

Slide the actuator arms, spacer and collars so that the actuator arms are positioned either side of the pull rod. Place a spacer

either side of the pull rod between the rod and each arm. Insert the clevis pin through the arms, spacers and rod and secure in place with the circlip.



Finally, bring both collars in so that they hold the actuator arms in the correct position, then using a 3mm hex key tighten their grub screws to a torque setting of 7.5nm.

#### Stage 8: Brake Test and Adjustment

Jack the base up so that it is not being supported by the front castors. Check that the castors do not move when you try to rotate them by hand.

Next, switch the unit ON and raise the platform until the maintenance props can be folded clear. Once folded clear, lower the platform and make sure that the delay feature operated correctly. If the delay feature does not work, refer to the manufacturer's maintenance manual for advice.

Once the unit has been fully lowered, check that the castors move freely when rotated by hand.

To adjust the brake system, use a 17mm spanner to loosen the lock nut.

#### Auto Brake does not release when the platform is fully lowered...

turn the adjuster stud anti-clockwise as required then re-tighten lock nut.

#### Auto Brake fails to hold castor when platform is raised...

Contact **Pop-Up Products** on +44 (0) 1244 833 933 for advice.

If you have performed the fitting at ground level, lower the unit so that you can remove the four stabilisers as described in stage 1.

At **Pop-Up Products** we welcome any feedback and suggested improvements for our products.

Please email us at: [feedback@popupproducts.co.uk](mailto:feedback@popupproducts.co.uk)

