Revised: 29 ${ }^{\text {th }}$ September 2017

## Installation Manual

## Elite Vertical

## Reference Number: INST 005-2017

## Description

The Elite Vertical stairway is supplied with a dampened hinge mechanism, allowing the Elite Vertical to be used on mezzanine floors or within a wall hatch. When required, the stairway is rotated forward and can then be lowered to the floor. The stairway is supplied with two heavy-duty counter-balanced springs, incorporated into pivot brackets to ensure that the stairway can be raised and lowered with minimum effort.

All Elite stairway units are supplied with a telescopic handrail for use where the size of the ceiling opening/hatch box permits. Both sections are adjustable and must be configured by the installer to suit their specific installation requirements. The bottom section of the handrail is static, whereas the top section slides within the bottom section to extend and retract when the ladder is opened and closed. The securing screws on the underside of the handrail fixing brackets should be used to adjust the length of the top section. Ensuring that the handrail doesn't interfere/conflict with the interior of the hatch box (where applicable) while also achieving the maximum length possible within the installation.

The maximum fixing height from the floor to underside of the backboard is 3390 mm . Selection of the correct stairway for the floor level to fixing height is determined as follows:

- Elite stairway supplied with 9 treads, 350 mm wide $\times 140 \mathrm{~mm}$ deep, to suit a floor to underside of the backboard height of $2250 \mathrm{~mm}-2500 \mathrm{~mm}$.
- Elite stairway supplied with 10 treads, 350 mm wide $\times 140 \mathrm{~mm}$ deep, to suit a floor to underside of the backboard height of $2501 \mathrm{~mm}-2790 \mathrm{~mm}$.
- Elite stairway supplied with 11 treads, 350 mm wide $\times 140 \mathrm{~mm}$ deep, to suit a floor to underside of the backboard height of $2791 \mathrm{~mm}-3090 \mathrm{~mm}$.
- Elite stairway supplied with 12 treads, 300 mm wide $\times 140 \mathrm{~mm}$ deep, to suite a floor to underside of the backboard height of $3091 \mathrm{~mm}-3390 \mathrm{~mm}$.

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## Installing the Stairway

First, check that the correct stairway has been received to suit the actual floor to fitting height as detailed above.

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Please Note: It is not possible to stretch the stairway out to its full length until it has been fixed in position.

The Elite Vertical is supplied mounted on a wooden backboard. The backboard should be secured to the floor using at least 6 screws, $\min . \varnothing 8 \mathrm{~mm} \times 80 \mathrm{~mm}$ (supplied with the stairway), and suitable plugs (when fixing into concrete surfaces). The backboard must be fixed to a suitable secure structure.

Please Note: The stairway must be fitted in the closed position.


## Adjustment of the touch-down point after installing the stairway.

The actual touch-down point (floor contact) of the stairway can be adjusted to suit individual stairways as follows:

Extend the stairway out to the desired touch-down point ( $15^{\circ}$ is the minimum angle). Slacken the lock nut (item 4) and turn the adjustment bolt (item 3) until it stops. Tighten the lock nut; the stairway will be set to extend to this touch-down point.

Once any adjustment has been carried out we would recommend that you check that the treads are horizontal to the floor.

The angle of the treads can be adjusted by slackening the two nuts on the underside of each tread. Reset all treads on the stairway so that they are horizontal.


## Adjusting the drop rate/speed after installing the Stairway

Loosen the lock nuts (item 6), adjust the spring tension by turning the adjustment screw (item 5). Ensure that care is taken that components do not twist out of position. The components must be aligned and parallel to the operating arm (item 2). Hold the spring in position (to prevent further rotation and misalignment) and tighten the lock nut.

Both springs must be adjusted equally.

## Adjusting the Spring Tension of the Stairway

The stairway is supplied with the correct spring tension, which is set at the factory. If the spring tension needs to be adjusted, we recommend that this is only carried out by a suitably qualified Maintenance Engineer.

Please Note: Spring adjustment must be carried out with the stairway in the closed position.
It is important that a $\varnothing 10 \mathrm{~mm} \times 300 \mathrm{~mm}$ long steel bar ('Tommy Bar') is used in the locating holes of the die-cast spring roller (item 8).

To increase the tension, place the steel bar in the hole next to the domed headed stud (item 9) and rotate until the stud can be removed.

Rotate the spring roller until it is possible to place the stud into the next hole adjacent to where the stud was removed. Once it is safely in position allow the roller to rotate slowly back so that the stud is back against the bracket and remove the steel bar.

Both springs must be adjusted equally.

