

14/02/2025

To whom it may concern.

## Re: Manufacture and supply of motorised height adjustable display screen mounts

We have recently been contacted by the HSE to inform us of incidents which occurred relating to electric height adjustable screen wall to floor mounts supplied by other manufacturers, whereby the screen mounts have driven into objects with no safety mechanism to stop the force and they have damaged their wall fixings as a result, making them unstable.

The manufacturers, whilst supplying products similar in look and design to our products, do not use the same components as Loxit. Their products are in no way related to Loxit's products.

We take product safety very seriously and our motorized screen mounts have safety mechanisms included as standard. All products are CE certified.

In their letter, the HSE have now provided their own interpretation of the wording contained in the Machinery Directive and have provided new guidance and further clarification based on this.

The relevant points the HSE have detailed in their guidance are as follows:

"A risk of serious crushing or impact injury to children may arise if a fixed riser column detaches from the wall or floor and falls forwards. A risk of serious crushing injury may also arise between the bottom edge of the display screen or mounting frame and any furniture or other fixed object in the path of movement.

### These risks occur when:

The centre of gravity of the combined riser column, mounting frame and IDS typically results in these units tending to lean forwards away from the wall so stability relies on the floor and/or wall fixings.

Solution: Install using sufficient number and specification of wall fixings. Introduce a structural floor plate if required to take load off wall fixings.

The means of fixing to the wall or floor are unsuitable to support the unit in normal use.

**Solution**: Installer must survey the building and specify fixings suitable for the installation. Installations of heavy screens in public must be carried out by qualified and competent people.

Floor and wall fixings, and other mounting components that would normally be suitable, are damaged or overloaded. This can occur when the column actuator motor is capable of applying significant force and there are no sensors or devices installed to limit power or detect a collision.



If the motor was actuated while in restraint, e.g. downward movement restricted by furniture. Such force is sufficient to cause catastrophic failure of fixings and other mounting components.

**Solution**: In built anti-collision sensors prevent the failure of mount fixings.

Overturning may also occur with mobile trolley mounted motorised height adjustable units."

**Solution**: In built anti-collision sensors prevent the mounts from overturning.

# **Loxit Product Ranges**

The ranges of electric height adjustable screen mounts products which Loxit supply are the Hi-Lo Screenlift, Hi-Lo Mono and Hi-Lo Duo ranges.

Due to the nature of their components, different products operate differently and include different safety features as standard.

Below is a table of products supplied with their safety features:

Product Range	Code	Anti-	Overload	Piezo	Anti-Crush	Floor
_		Collision		Sensor	Bar	Plate
Screenlift Trolley	8960	Yes	No	No	Optional	N/A
Screenlift Trolley HD	8964	Yes	No	No	Optional	N/A
Screenlift Wall to Floor	8961	Yes	No	No	Optional	Optional
Mono 500 Trolley	8420	Yes	Yes	No	Optional	N/A
Mono 500 Free Standing	8425	Yes	Yes	No	Optional	Optional
Mono 500 Wall to Floor	8430	Yes	Yes	No	Optional	Optional
Mono 600 Trolley	8421	Yes	Yes	No	Optional	N/A
Mono 600 Free Standing	8426	Yes	Yes	No	Optional	Optional
Mono 600 Wall to Floor	8431	Yes	Yes	No	Optional	Optional
Mono 500 Trolley HD	8400	Yes	Yes	No	Optional	N/A
Mono 500 Free Standing HD	8405	Yes	Yes	No	Optional	Optional
Mono 500 Wall to Floor HD	8410	Yes	Yes	No	Optional	Optional
Mono 600 Trolley HD	8401	Yes	Yes	No	Optional	N/A
Mono 600 Free Standing HD	8406	Yes	Yes	No	Optional	Optional
Mono 600 Wall to Floor HD	8411	Yes	Yes	No	Optional	Optional
Hi-Lo 450 Wall Mount	8800	Yes	Yes	Yes	Optional	N/A
Duo 680 Wall to Floor	8940	Yes	Yes	Yes	Optional	Standard
Duo 680 Trolley	8945	Yes	Yes	Yes	Optional	N/A
Flip Top Trolley	8505	Yes	Yes	Yes	Optional	N/A
Flip Top 180	4500/4510	Yes	Yes	No	Optional	N/A



#### **Definitions:**

Anti-Collision Screenlift Range – Built in. Prevents the screen being dislodged when the sensor detects same amount of upward pressure of screen load plus 3-5kg. Stops motor operation, reverses the motor 30mm then cuts off power. Prevents motor lifting the screen off the mount and damaging the installation fixings if driven into immovable object.

Anti-Collision Mono Range – Built in. Reacts when collision is detected. Sensitive and also operates when a tilt is experienced for example collision with furniture and a screen tilts slightly. Stops motor operation, reverses the motor 30mm then cuts off power.

Overload – Built in. Fail safe device which renders the motor inoperable at the point of overload. Prevents the motor being continuously driven into an object when securely mounted to the wall.

**Anti-Crush Bar** – Optional for environments where K-12, younger years, SEN, vulnerable or wheelchair users are using screens. Very sensitive adhesive contact bar operates when small pressure is detected. Stops motor operation, reverses the motor 30mm then cuts off power. Can be retro-fitted.

**Piezo Sensor** – Built in. Reacts to direct obstruction when the motor is operated up or down. Safeguards against material damage should it encounter a solid object.

Floor Plate – Optional. For use where additional support is required to substantially take load off wall fixings when installing wall to floor mount options.

All product safety options are detailed on our website, brochures and price lists.

## Standard Practice.

Switches operating the motor are supplied with adhesive to allow it to be positioned out of the reach of a child or in a place which is not obvious to an unauthorized user, to help prevent unauthorized mis-use.

Wall quality and fixings used. Advice must be sought from the installation surveyor and installer of the products. As Loxit do not provide building surveys we are unable to specify fixings for all the differing building materials and in the case of older buildings, the quality of building structures. Screens are often large and heavy and as such require a professional installer to survey the building and specify the type, quality and quantity of fixings depending on the building structure and condition.

In their new guidance, the HSE expanded on documentation with their interpretation of mis-use of equipment to include the unauthorized or unsupervised use by children.



As detailed in the operating instructions supplied, the operation of the electric screen mounts must always be by a competent adult and never by children. In the classroom environment, misuse of equipment would reasonably expected to be restricted to that by a competent adult operating the equipment, children should never be left unattended with machinery.

# In response to the HSE's interpretation of the Machinery Directives we would recommend the following steps are undertaken.

Consider where motorised mounts have been supplied that are in environments where there may be vulnerabilities. This may include:

K12 education, younger years, SEN environments, wheelchair users, buildings with poor quality walls, environments where adults may not be able to control the children's behaviour or prevent them mis-using the equipment or prevent unauthorized or unsupervised use of the equipment.

# Product Safety

### **Hi-Lo Screenlift Range**

The Screenlift products include required safety mechanisms to prevent the electric mount becoming unstable in the event of a collision with an immovable object. In this event it will exert the same force as the weight of the screen plus 3-5kg to prevent the screen dislodging or working against its wall fixings.

Where walls are not structurally stable we always recommend either a trolley, free standing mount or a floor plate accessory when installing a wall to floor mount, to reduce the load on any wall fixings. The Easy Install Wall Bracket allows for up to 4 rows of fixings up to 800mm wide to spread the loading across large areas of the wall structure for a stable and firm installation.

We recommend the use of an additional Anti-Crush Bar safety device, code 8973. This accessory has always been available on all models as an option on our motorized mounts and provides an extra layer of safety to prevent crushing.

Consider using a Screenlift Wall to Floor Plate accessory to reduce load on wall fixings and ensure stability if wall fixings fail.

Ensure users of the equipment have read the operating instructions supplied with the product.

### **Hi-Lo Mono Range**

The Hi-Lo Mono range has overload and anti-collision technology installed as standard. The overload device will fail and render the motor inoperable when sufficient force is applied during driving down onto an object, preventing the lift being continuously driven into an object.

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The anti-collision technology is a gyroscopic sensor which identifies a collision or tilting of the mount. At point of hitting an obstruction, the device senses the collision, reverses the motor 30mm and then cuts power.

We recommend the use of an additional Anti-Crush Bar safety device, code 8973 when installed in vulnerable environments.

Consider using a Hi-Lo Mono Wall to Floor Mount Floor Plate accessory to reduce load on wall fixings and ensure stability if wall fixings fail.

Anti-collision gyroscopic sensor technology was introduced to the Mono range when it first became available in January 2020. Up until that date, the overload mechanism and the optional Anti-Crush Bar were the method of detecting and preventing damage during collision.

For users who have installed the Hi-Lo Mono range of lifts prior to Jan 2020, do not have the anticrush bar integrated and are operating the mount in an environment where they require additional safety measures or are concerned the wall fixings may be insufficient, we recommend a control box upgrade.

### **Hi-Lo Mono Control Box Upgrade**

The control box is located in the motor head box at the top of the Hi-Lo Mono column. If the control box is returned to Loxit we will re-programme and fit an anti-collision device free of charge, including the return postage, for the user to re-fit.

Turnaround is approximately 3 working days from receipt of control box.

Contact details:

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Where the control box upgrade is not required or it is not possible to be returned, we advise clear signage is placed close to the screen in clear view stating that a 300mm gap around the screen and mount along with 200mm clearance to the bottom edge of the screen and the floor and should be maintained at all times to prevent collision with furniture.

In the event of the mount being continuously driven into an object and the wall fixings not being sufficiently strong enough, the screen mount could damage its wall fixings resulting in the mount falling forwards, before the motor overload causes the motor to fail.

Children and non-authorized users should never use the machinery.



# Hi-Lo Duo Range

The Hi-Lo Duo range has anti-collision built in with a piezo sensor.

We recommend the use of an additional Anti-Crush Bar safety device, code 8973 when used in vulnerable environments.

#### **General Advice**

Teachers and school environments should be advised to provide and maintain a clear area of 300mm around the electric screen mounts to prevent any collision with objects. Maintaining a clear area for the working space is advised within the product instructions.

The operation switch is provided on a cable with adhesive to allow positioning in the best position in the environment. Place the motor switch in a position where it is out of reach of a child or in a discrete place, to discourage use by non-authorized persons.

Provide clear signage adjacent to the installation reminding the users:

- To maintain clear space for operation all around the product to ensure no collision with objects.
- Warning of the risk of crushing if contact is made with a motorized screen mount.
- Reminder that electric screen mounts should only ever be operated by authorized and trained persons. Never by children.

Check the quality, specification, number of fixings used for the installation.

Check the quality and strength of existing walls and fixings during routine maintenance and after evidence of a collision.

Where vulnerabilities in the environment are found, consider purchasing additional safety options to ensure installation and operational safety.

Anti Crush Bars are optional for all wall mount and trolley mounted products depending what environment they are installed in.

For Wall to Floor Mounts, optional floor plates provide stability in the event of failure of wall fixings.

If you are not the user of the equipment, please forward the above advice to your customer.

Safety and customer service has always been at the heart of Loxit's products and company ethos.

We are here for advice and help.



Please contact us if you require any further information.

Yours sincerely,

John Whittle

Director