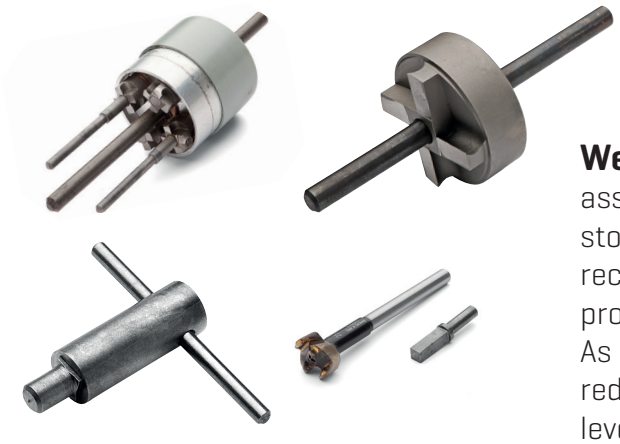
d line
KNUD HOLSCHER DESIGN

Hardware
Bathroom
Washroom

d line Installation and Maintenance Guide



We have prepared this Installation and Maintenance Guide to assist the Architect in his selection of, the Contractor with his storage and fixing of, and the Maintenance Staff with their correct approach to maintenance and adjustment of d line hardware products.
As quality products have been chosen, it is essential they are stored, fitted and maintained correctly in order to ensure the highest level of performance during the whole of their working life.

Storage

All d line items are carefully packed before delivery to avoid transit damage. On receipt at site it is essential that all ironmongery is stored in a dry environment prior to installation. After installation, it is recommended that the ironmongery is protected until the construction phase is completed.

Installation

d line products are of high quality and it is necessary that they are installed according to the appropriate fixing instruction. Fixing instructions and templates are supplied with standard products. With regard to installation of d line products it is recommended to use the appropriate boring tool. Additionally, it is advisable to use an electric screw driver.
No substitution of fixings should be undertaken without prior reference to d line. Any such substitution may invalidate performance statements given or implied in product literature and/or fixing instructions.
The correct installation of all items of ironmongery is essential to achieve the performance levels stated.

Lever and Knob Handles

When fitting d line lever and knob furniture it is essential that the products are fixed using the special boring tool in accordance with the fixing instruction provided, and at right angles to the lock case. d line strongly recommends that the correct drill, which rotates on a square pivot inserted into the lock case follower, is used. For wooden doors pre-drilled with a hole of less than Ø25mm, the unique d line drill bit must be used to prepare the hole to Ø25mm, so that the lever or knob handle can be fixed directly to the door without requiring any extra components. Due to the unique integrated ball bearing mechanism within d line lever and knob handles, it is necessary to use d line's fixing tool in order to ensure the correct fixing and adjustment to roses or back plates. However, doors in Scandinavia are generally pre-drilled with a Ø40mm hole. For wooden doors it is necessary to use a different d line drill bit that prepares the hole for the patented plastic bush insert, whilst for steel doors a patented spring fixing bush is used when installing lever handles on roses. Both methods provide maximum stability to the lever furniture and reduce potential wear of the lock case. A Torx 10 screw driver or bit is required for the installation of the lever and knob handle components. d line lever and knob handles are fixed with sectioned bolt counter sunk screws and can only be adjusted using a Torx 10 screw driver. This provides a positive engagement of driver and screwed recess, minimising damage to the screw head.

Pull Handles

d line pull handles are fitted by using a unique universal fixing method which allows the large selection of pull handles to fit together in either a varied or co-ordinated manner. This fixing systemprovides the facility to combine a pair of handles of the same diameter from two different designs within the range.
Templates are provided to give accurate fixing positions for all standard pull handles. It is important that bolt holes of the correct size, at right angles to the door face and the necessary centres, are drilled accurately. Each fixing should be tightened to ensure the pull handle is firm and stable.For the protection of the glass, when installing on glass doors, it is of great importance to use the d line washer and nylon liner sleeve set.

Door Closers
After fitting in accordance with the fixing instruction and template, the door closer must be adjusted to provide a smooth closing action so that the door closes correctly. Occasional lubrication of the latch bolt, using an aerosol spray, will ensure a smooth action.

Panic Equipment
Each item should be fitted in accordance with the fixing instruction using the fixings provided.

Bathroom accessories
Each item should be fitted in accordance with the fixing instruction supplied with the product.

Washroom products
Each item should be fitted in accordance with the fixing instruction supplied with the product.

Maintenance
Lever and Knob Handles
On installation, where the correct procedure, as per the instructions, has been carried out the lever and knob handles will not require adjustment. However, all fixings should be checked for tightness at the annual control. Any loose fixings should be adjusted. Badly fitted furniture can cause interference with the operation of the lock and, at the same time, damage the bearing surface of the furniture.
d line snap-on rose covers should only be removed using the correct d line Clip Key fixing tool. A screw driver blade should not be used as this will distort the rose cap out of alignment and scratch the surfaces of both product and door.
Pull Handles
Pull handles should be inspected to ensure that the fixings are appropriate with grub screws, where used, firmly in position. Any movement of the handle will damage the door surface and cause the handle to become unstable and fail when used.
Door Closers
Each door closer should be inspected for oil leakage, tightness of fixings and correct operation.
Panic Equipment
All locks and latches should be inspected to ensure that they are operating correctly, with the strike plate correctly bent to ensure smooth action of the latch bolt so that the door closes correctly. Occasional lubrication of the latch bolt, using an aerosol spray, will ensure a smooth action.
Hinges
All hinges should be checked for tightness and lubricated on a regular basis. Where hinges are fixed on the exterior of a building it may be necessary to lubricate more often.
Care of Finishes
Today's environment exerts immense pressures on product material requirements. Products must withstand a diversification of atmospheric conditions, such as high pollution, marine locations, high humidity climates. Additionally, products must be protected against cleaning agents/solutions and ideally the product should offer hypo-allergenic properties.

Stainless Steel

Stainless steel is renowned for the following two properties; resistance to corrosion and low maintenance requirements. Stainless steel corrosion resistance is attributable to the presence of a thin, durable film of passive, but stable, chromium oxide. Being inert, invisible, extremely adherent and self-repairing, this film provides an unrivalled protection for the steel; should the film be damaged or removed it will regenerate independently, provided that oxygen is present to allow the reaction to occur with the chromium content of the steel. Thus the necessity to ensure regular cleaning maintenance.
Cleaning is carried out to restore the original surface appearance, prevent corrosion and maintain hygienic conditions.

Cleaning Technique

It is important to clean stainless steel regularly.
Initially, wash down the surface using soapy water or a mild detergent.
Always thoroughly rinse the cleaning agent away with clean water.
To complete the cleaning procedure dry/polish the item with a soft, dry cloth.
Within aggressive conditions, such as offshore, marine and swimming pool environments, it is especially relevant to ensure that cleaning maintenance occurs regularly.

Discoloration

If spots appear on the surface it is not due to the stainless steel, but to impurities in the water, the air or to cleaning agents that have not been thoroughly removed from the surface.
Spots can be avoided by careful cleaning.
If discoloration or spots occur they can be removed by using special polishing agents for stainless steel or a light scouring cream.
Again rinse thoroughly with clean water and polish with a soft, dry cloth.

What to avoid!

- Scouring powders
- Steel wool
- Strong abrasive materials

Acid based cleaning solutions, except for hydrochloric acid, may be used on AISI 316 stainless steel as long as thoroughly rinsed with clean water afterwards.
For further information on stainless steel, please contract your local d line distributor for the d line Stainless Steel Technical Details information sheet.

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