

# Operations and Maintenance Manual.

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January 2018



**FIRE | ACOUSTIC | SECURITY | HOSPITAL | BALLISTIC | COMMERCIAL**  
Performance Door, Window & Panel Manufacturers

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# Use and Care of Door Sets

The best way of ensuring long term durability of a door set is to ensure that the door leaf swings freely throughout the arc of the door opening, and that any hardware fitted is well maintained and regularly adjusted as required, allowing the door set to function as intended i.e. the closer allows the door leaf to close smoothly and the door latches without needing to be forced.

Doors being chocked open with blocks or wedges after they have been hung will induce stress on the hinges or cause the door to twist when working against a closer. Wedges or chocks should be removed to avoid the temptation to use them. Fire doors must only be held open on approved magnetic hold open devices. Wedging open of fire doors is against the law as this will prevent them from functioning as a fire stop door.

## Door and Frame Finish Maintenance

### **PAINT QUALITY & VENEERED**

It is imperative that all doors and frames are well painted to seal the timber and protect metal surfaces where applicable. The selected coating system must be suitably maintained to provide an ongoing adequate seal according to the paint supplier's recommendations in order to prevent deterioration of the doors or frame.

### **HIGH PRESSURE LAMINATE I.E. FORMICA**

Keep waxes and polishes well away as they dull the natural shine. Do not use strongly acidic, alkaline cleaners or bleach for normal cleaning as these might etch the surface.

Streaky marks sometimes show on dark colours after cleaning. An all-purpose cleaner such as Ajax Spray n Wipe usually removes them. Using a mild dishwashing detergent in hot water will remove greasy marks. If needed, dab, wait and wipe away. Finish with an all-purpose cleaner such as Ajax Spray n Wipe. Laminate surfaces resist staining from most household chemicals. With some accidental spills however, prompt action is essential. Wipe off beetroot and berry juices, first aid preparations, concentrated bleach, oven cleaners, dishwasher detergents, artificial dyes, hair colouring and solvent-based pen ink immediately. Specialty glues such as Super Glue can also be removed straight away with acetone (nail polish remover).

**Stains:** If the stain won't budge with Ajax Spray n Wipe, try methylated spirits or dab the stain with a diluted bleach mixture (1 part bleach to 8 parts water); leave for 3 minutes then wash off with water and dry. Finish off with Ajax Spray n Wipe. Please note that bleach may irreversibly damage the laminate surface.

**Scratches:** Laminate surfaces will withstand normal wear and tear, but can be damaged by scratching or cutting with sharp objects. Darker colours will show scratches more readily than lighter colours. In general, dark colours and high gloss surfaces require more care and maintenance than lighter colours or lower gloss colours.

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**Specific Care:** A damp cloth will remove spills and greasy spots. Rub with a clean dry cloth to bring back brightness. Occasionally clean with mild dishwashing detergent. To remove heavy build-up of dirt use cleaners such as Mr Muscle or Ajax Spray n Wipe spray cleaners.

## **ANODISED ALUMINIUM**

In order to maintain the clean aesthetic finish of anodising regular cleaning is required to remove grime without using abrasive materials such as sandpaper or steel wool. Regular cleaning can be carried out using a soft rag or brush with warm water containing a mild soap solution. For more difficult grime a soft rag dipped in white spirits can be used. Be sure to clean down with warm water afterwards to ensure removal of all residues.

## **STAINLESS STEEL**

Stainless Steel frames, doors and hardware including hinges require regular cleaning to remove salt deposits and grime including tea staining, the frequency of this cleaning is dependent on the location and level of exposure but half year cleaning should be a minimum given New Zealand's coastal environment. This is for exterior and interior situations. If the door, frame or hardware is an exterior situation in a seafront area then the cleaning is recommended monthly.

## **ZINC TREATMENTS**

In order to maintain the protective qualities of a zinc treated steel element, care should be taken to ensure that any damaged element is re-coated with the appropriate zinc-rich product.

## **POWDER COATED**

As a general rule cleaning should take place every six months. In areas where corrosive agents are more prevalent, such as beachfront houses and industrial or geothermal areas, then a cleaning program should be carried out on a more frequent basis i.e. every three months. The effects of ultra violet light, atmospheric pollution, dirt, grime and airborne salt deposits can all accumulate over time and should be removed at regular intervals.

# Glass Maintenance

In most cases, glass can be washed with plenty of clean water. Sometimes a bit of neutral detergent or an appropriate commercial cleaning product can be added to the water. A squeegee or specially designed cloths are also used. Once cleaned, the glass should be rinsed with clean water and wiped with a squeegee or suitable cloth taking care not to get surplus water into the glazing rebate.

Do not wash the glass when it is fully exposed to the sun. Avoid washing it when it is too cold or hot. When glass is cleaned for the first time after being installed (end of project), it may be particularly dirty.

### ***We recommend the following steps:***

- Remove labels as soon as possible. If there is any difficulty in doing so, solvents such as methanol, isopropanol, acetone, trichloroethylene may be used.
- Fingerprints and grease or mastic stains can be removed with solvents such as acetone,
- Methylethyceton (MEC) or ammonia provided that these products do not attack the seals and penetrate into the rebate.
- Rinse thoroughly to remove as much dust as possible and wash as noted above.

# Exterior Door Maintenance

External doors and frames must receive an appropriate finish to adequately seal and protect the door and frame depending on the degree of exposure, including additional protection by flashing. We strongly recommend that all external doors have a metal channel capping fitted to the head as a minimum. Fire rated door sets in exposed situations should ideally be fitted with steel faces and edge caps to all edges for maximum durability.

Painted or powder coated steel in exterior situations requires regular cleaning to remove salt deposits and maintain the protective coating, the frequency of this cleaning is dependent on the location and level of exposure but quarterly cleaning should be a minimum given New Zealand's coastal environment.

Exterior steel surfaces are supplied as cold rolled galvanised steel, unless specifically noted as being different, and thus require a full paint finish to be applied if it is not factory powder coated.

Use only neutral cure silicone rubber sealants.

Surface finishes should be checked when carrying out regular cleaning to see if any surface treatment damage is visible. Damage to surface finishes will compromise the substrate and need to be touched up. Any signs of surface finish damage should be repaired using the appropriate product including reinstating any zinc treatment where required. Follow manufacturer's recommendations using good quality paint systems.

**For powder coating repairs see:** <http://www.duluxpowdercoatings.co.nz/information/care-maintenance/>

## Method of Cleaning Door Sets

Three steps to cleaning your door set.

1. Carefully remove any loose deposits with a wet sponge.
2. Use a soft brush (non-abrasive) and a mild household detergent solution to remove dust, salt and other deposits.
3. Rinse off with clean fresh water.

\*Care should be taken to ensure that the water used in the cleaning process does not contact the door core or unpainted/untreated elements.

## Hardware Maintenance

**This section relates to only the Pacific Doors supplied hardware items, which in most instances is hinges only.**

### **HINGES**

Hinges should be checked for signs of wear and tear every 3 months, and replaced if showing signs of stress or failure.

### **BLOCK HINGES**

PDS block hinges are a heavy duty, fully adjustable hinge assembly, comprising of three main bodies; a top block, a centre flag, and a bottom block.

Hinges should be checked for signs of wear and tear, as a minimum every 3 months or more frequently relative to use or recent incident. Hinge components or assemblies should be replaced if showing signs of stress, damage or failure. All fixings and locking grub screws must remain tight and ensure that the pins are still running on the ball bearing (not bottoming out on the block). PDS block hinges are zinc coated steel and as such require the appropriate protective coating in relation to the environment they are installed in.

**Adjustment:** Leaf height can be adjusted by winding up or down the vertical grub screw that exists in the bottom block (5mm allen key). Be sure to adjust all hinges on the door leaf to ensure the load is evenly distributed.

Sag can be adjusted by loosening the two cap screws (10mm allen key ) which secure the middle flag to the door leaf, and adjusting the two horizontal grub screws ( 2.5mm Allen key ) in the required direction. Taking the weight of the door with a wedge at its furthest point can assist in this process.

Upon completion of adjustment, ensure all fixings are in present and secure, including retightening the previously loosened fixings.

**Lubrication:** Ensure hinges remain lubricated at all times. Doors which are not used frequently, should be opened and closed a minimum of every three months to ensure no seizing or stiffening of the action has occurred.

A PDS block hinge equipped with a grease nipples can be greased using needle point grease gun through the provided grease nipples.

A PDS block hinge not equipped with grease nipples can be greased as follows:

Top hinge block removed from door frame, bush cavity checked for damage, cleaned, greased and replaced.

Bottom hinge blocks removed from door frame, bush cavity checked for damage, cleaned, greased and replaced.

We suggest doing each block one at a time to avoid the door being unsupported. The use of a door wedge can also assist this process.

As an alternative, a grease adaptor is available from PDS to aid in greasing the bottom hinge block. This involves temporarily removing the height adjust grub screw from the bottom block (watch for the ball bearing contained within, it may be held inside or come out with the grub screw), inserting the grease adapter, and using your grease gun priming the cavity. Remove the adaptor and reset the height adjusting grub screw.

Grease may weep or become visible during the course of use or due to environmental factors. Wipe clean as necessary. If cleaning agents are used ensure these are not corrosive, and ensure they are compatible with the any surfaces it may come into contact with.

## **MAINTAINING FUNCTIONAL PERFORMANCE OF OFFSET BIFOLD DOORSETS.**

*To maintain good function from the door set the following maintenance should be carried out:*

### **Rollers**

Keep the track clean and clear of any debris that may affect its operation such as dirt, sand, leaves and dust. If the rollers appear stiff apply a small amount of lubricant on the bearings.

### **Hinges**

HClean at regular intervals to remove any build up. This will ensure that the hinges continue to operate smoothly. Caution must be exercised to ensure that the grease which lubricates the gears is not removed during cleaning.

## SEALS:

Ensure any seals are fitted correctly and inspected regularly to ensure gaps are correct. All doors will sag or drop with usage, seals may need to be adjusted where possible to ensure optimum performance especially for fire, smoke and acoustic door sets.

Add in for assistance with how to adjust drop seals refer to:

[www.pacificdoors.co.nz/installationvideos](http://www.pacificdoors.co.nz/installationvideos)

## Fire Door Maintenance

As well as the above operations and maintenance advice; New Zealand Standards 4520 section 7 is dedicated to the inspection, maintenance and reporting on fire doors. We would encourage you to familiarise yourself with this standard. [www.standards.co.nz](http://www.standards.co.nz)

Frequency (Months)	Inspection	Criteria	✓
1	Door swing area	Free of all foreign material (Stones, litter). Remove wedges or chocks used to hold the door open.	
1	Doors open and close	Operate without clashing or scraping/ remove wedges.	
1	Gap between leafs and jamb	Should be sufficient to allow the doors to swing without clashing or scraping on frame or opposite door leaf. Gaps not to exceed 3 to 4mm at meeting styles and between leaf at head and Jamb.	
1	Fire, smoke and acoustic door sets	Seals to each edge of door leaf and frame not damaged or missing (Replace if missing).	
1	Lock	Operates correctly.	
1	Door latching	Check the self-latch works when the door self-closes.	
	Glass	Not cracked or broken; able to see through it.	
1	Hardware	All fittings tight and function freely.	
1	Drop seal if fitted	Drops snugly against the threshold when door is closed. (Adjust if required).	
1	General condition	Any damage does not affect the functionality of the door.	
1	Hardware alterations	Has additional non-compliant hardware been added or original complying hardware been removed or altered in any way post installation declaration sign off (fire doors only).	
1	Visual	Signs visible and in place.	
1	Glass	Vision panel glass not damaged and beading secure.	
12	Compliance	Ensure the gap between door leaf and top of floor coverings is no greater than 10mm.	
3	Clean	Wash down exterior door sets to remove any salt deposits.	
3	Hinges	Check for wear and tear. Ensure protective coating has not been damaged or showing signs of deterioration.	