

MAINTENANCE PROCEDURES

FOR MANUALLY OPERATED
SINGLE SLIDING AND BI-PARTING DOORS



APPLICABLE FOR DOOR TYPES
E32, F01, F11, F12, B01 & B100



300061-4 V2

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To ensure safe operation, long term reliability and working efficiency, doors should be regularly maintained and AXIS recommends they be serviced as detailed below:

All parts supplied and installed by AXIS are covered by a twelve-month warranty for faulty components (unless due to misuse, abuse or negligence, etc.) providing the doors are regularly serviced by an experienced tradesman. Details of our Preventative Maintenance Agreements are available upon request.

The frequency of service visits may have to be increased to suit the volume of traffic/use and the local environment.

If you have any issues with the doors during the warranty period or require an engineer to attend site for a service call, please contact our Service Department on **01604 212500** or email **service@axisentrances.com**

SINGLE SLIDE & BI-PARTING DOORS

Two formats are offered, single slide with one panel and bi-parting with two panels. The bi-part system is two single slide systems operating independently of each other, although both systems often work on one continuous track and are concealed within the same housing.

MAINTENANCE PROCEDURE – GENERAL

Monthly

- If switchable glass or electrically operated blinds are installed, check that the “energy” chain fitted between the top of the door and the track is intact (not showing signs of wear or damage)

Every 6 Months

- Visually inspect the fit of the door
- Check for any debris and remove
- Check for any damage to the door set including glass
- Check pelmet is secure
- Check that bottom guide is secure
- Check that handles are secure
- Check operation of door
- Check that door seals are intact
- Check operation of blinds (if fitted)
- Check operation of SmartGlass (if fitted)
- Check that if SmartGlass or other types of switchable glass is installed, that the advised “resting” periods are being followed (refer to O&M manual)

If the event of the following situations, please contact our Service Department on **+44 (0)1604 212500** or email **service@axisentrances.com**

Replacement of parts

Doors are not operating in the correct manner

Removal of doors

Damaged glass

MAINTENANCE PROCEDURE – TRACK

Every 6 Months - Clean track (as per steps excluding 7 – subject to volume of traffic, etc)

Every 12 Months – As steps 1 - 13

1. Visually inspect the door and test operation.
2. Undo end plate screws that hold the pelmet at both ends (2 screws at each end). [see Figure 1]
3. Raise and lock the pelmet. [see Figure 2]
4. Move the door to one end of its travel.
5. Wipe the semi-circular grooved portions of the track (upper and lower) to remove any dust/debris. [see Figure 3]
6. Move the door to the other end of travel and wipe remainder of track.
7. Grease the cassettes by applying a couple of squirts from a grease gun through the holes in the bracket. [see Figure 4]

Lubricant to be Castrol Spheerol Grease to NLGI 2.

Use conical grease nozzle and move the door whilst squirting the grease. This ensures grease is pulled into the cassette.

8. Check the damper units for operation (1 at each end of door travel).

No visible damage.

Damper softens closing of the door.

Damper unit opens fully as door bracket pulls away from it.

9. Check all fixings are tight.

Screws fixing track to header (pairs of screws at 300mm pitch along length of track)

Screws in damper units (2 screws per unit)

Screws fixing bracket to slide cassette (4 screws per bracket)

Lock nuts tightened against top of door (2 lock nuts per bracket)

Lock nuts tightened against bracket bar (2 lock nuts per bracket)

10. Cycle door a few times to test operation.

11. Unlock and lower the pelmet

12. Refit end plate plates

13. Measure and log door movement force

FIGURE 1

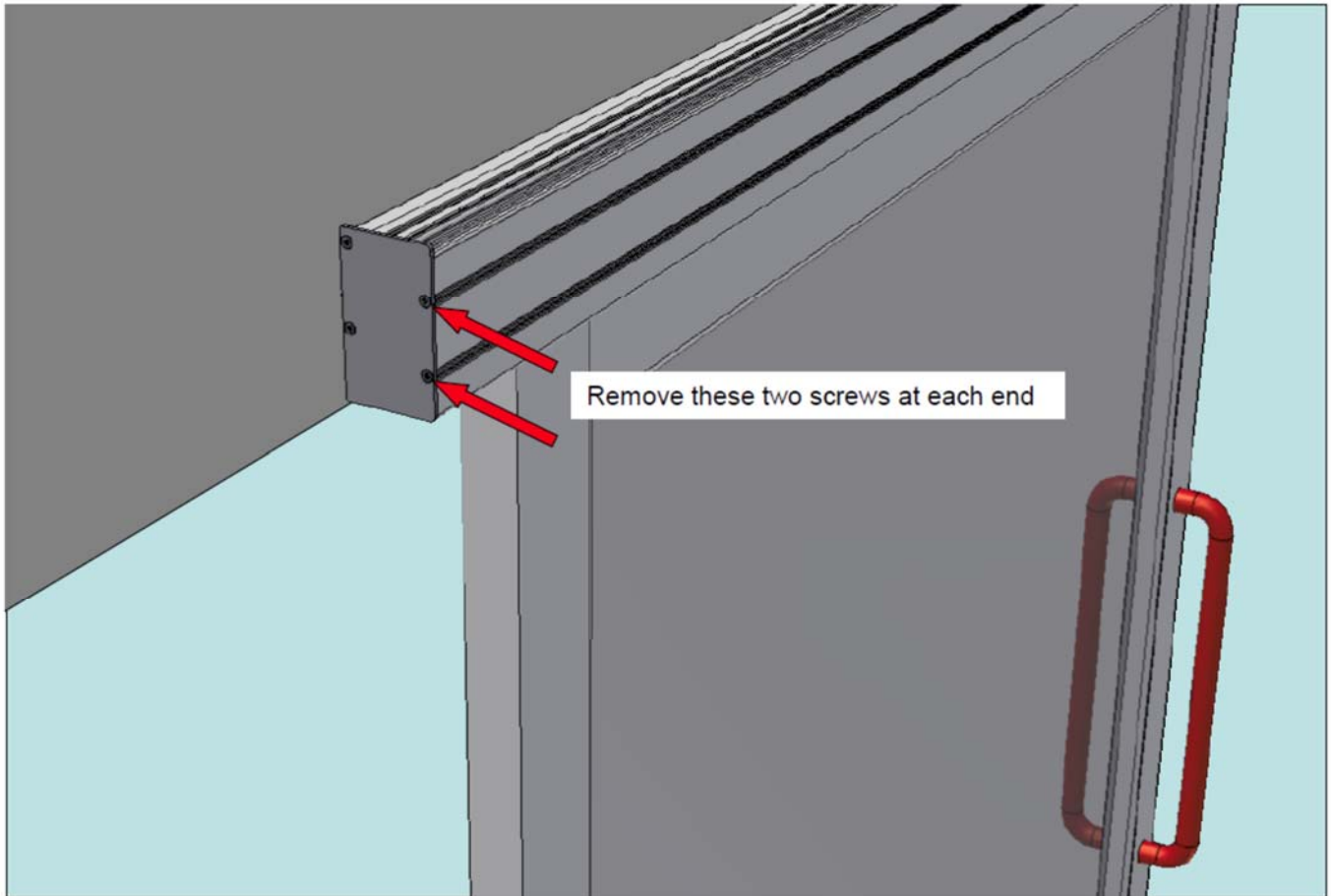


FIGURE 2

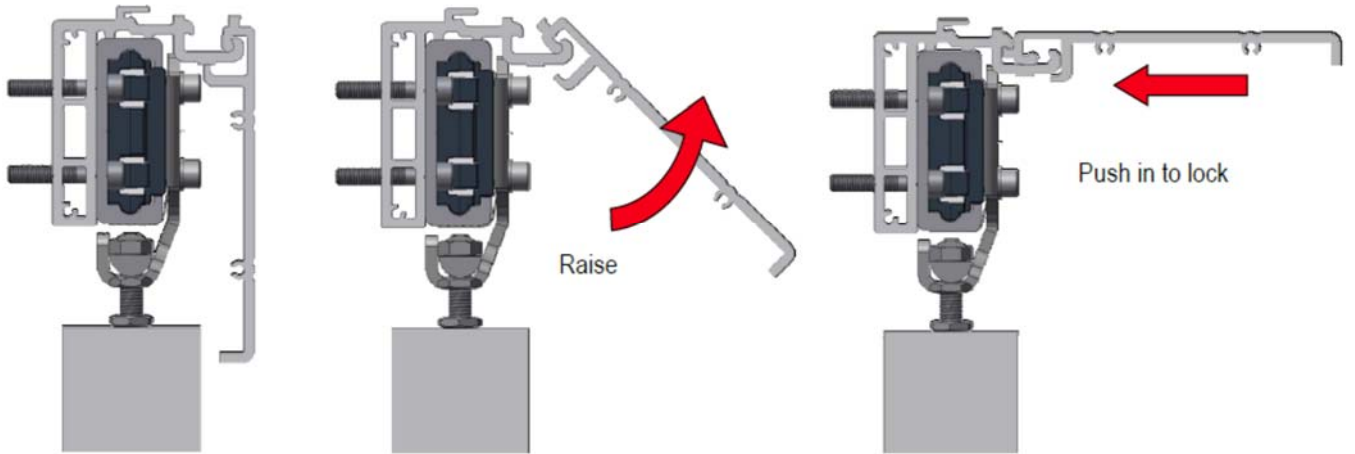


FIGURE 3

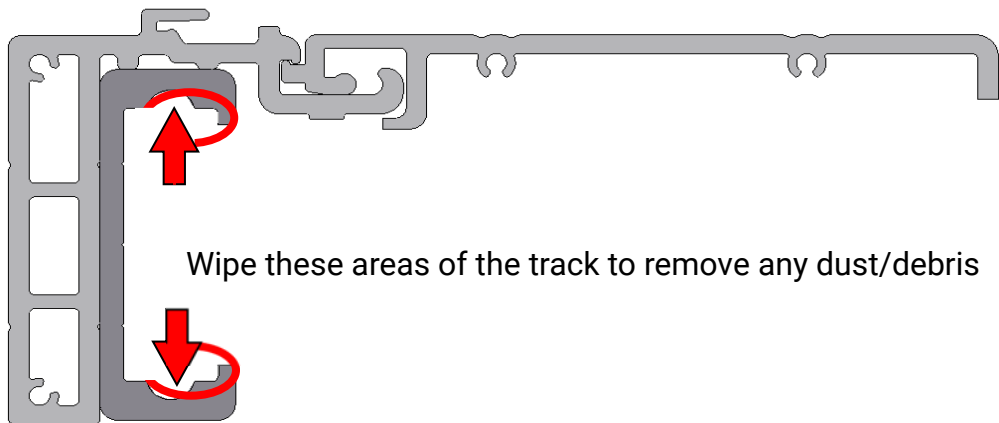
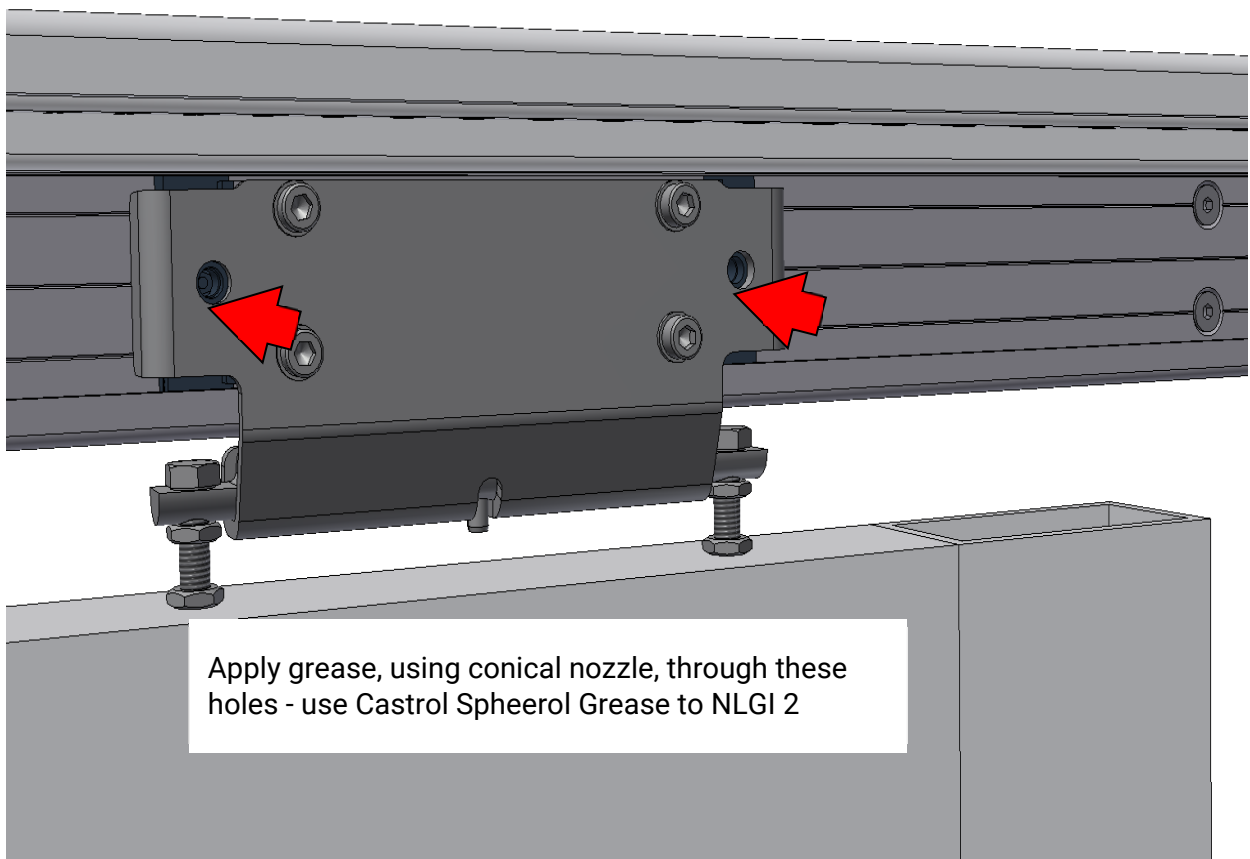
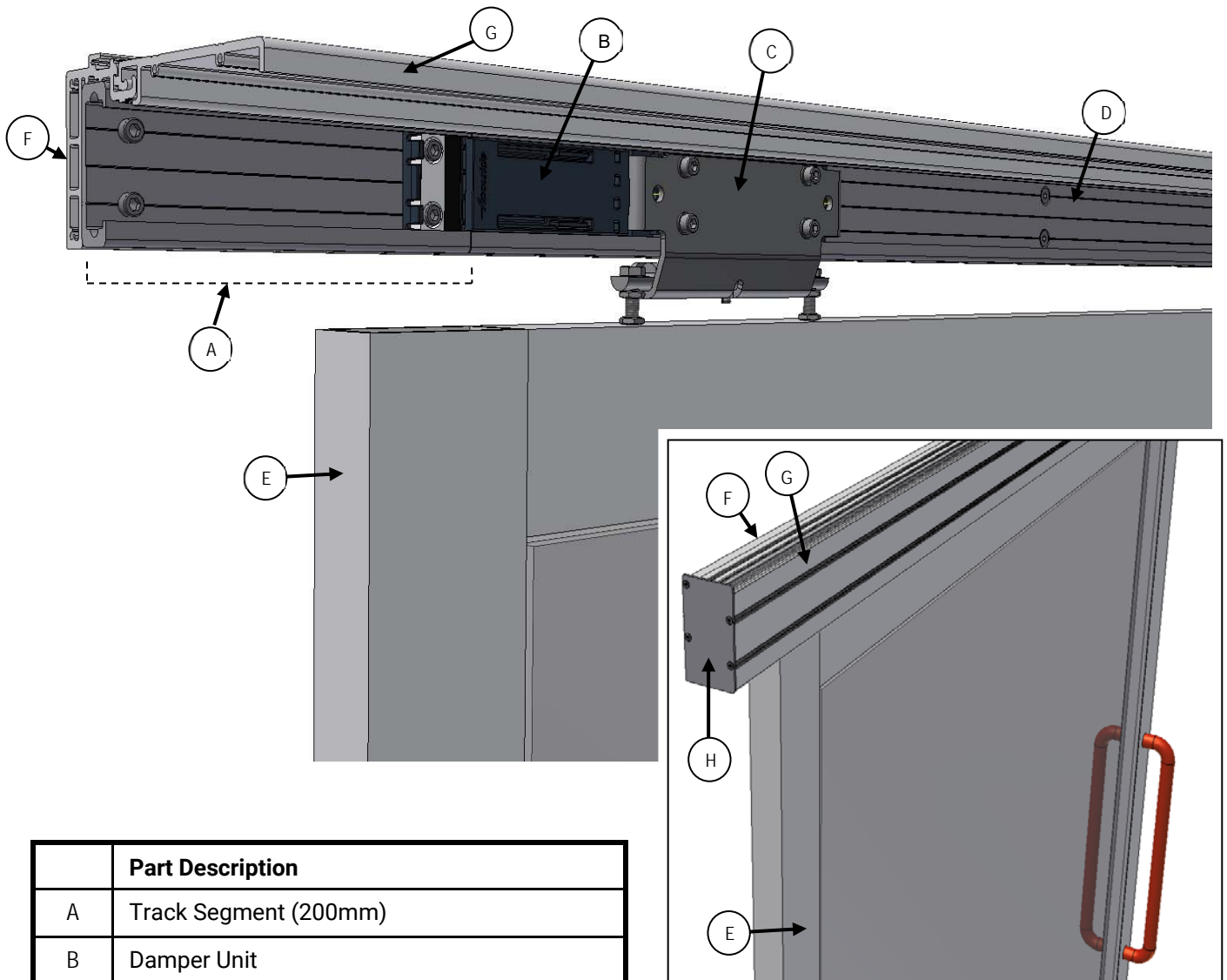


FIGURE 4

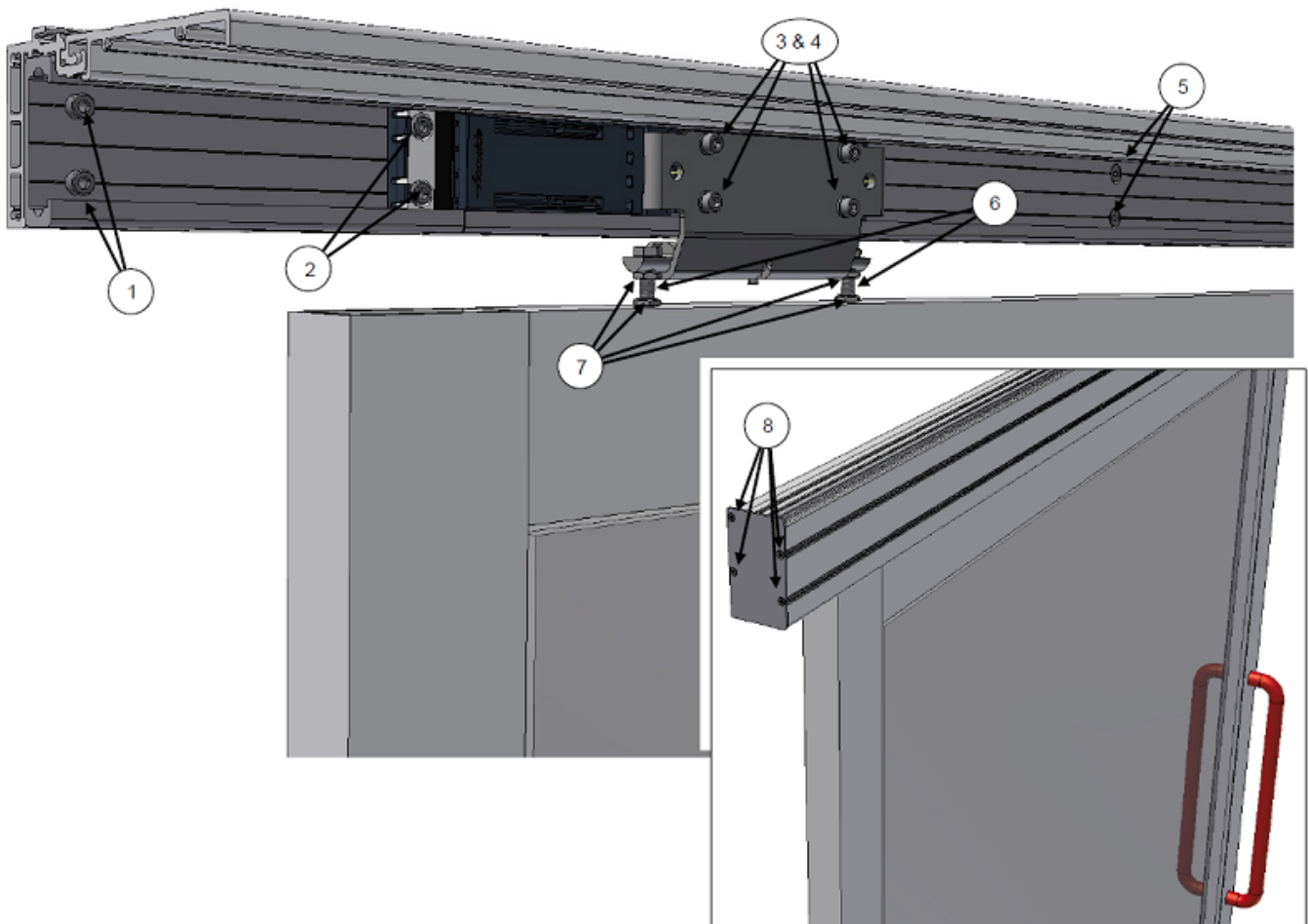


PART IDENTIFICATION GUIDE - TRACK



| | Part Description |
|---|--------------------------|
| A | Track Segment (200mm) |
| B | Damper Unit |
| C | Bracket & Track Cassette |
| D | Track |
| E | Door |
| F | Support Beam |
| G | Fascia / Pelmet |
| H | End Plate |

FIXING IDENTIFICATION GUIDE - TRACK



| No. | Size | Fixing Description | Qty. |
|-----|----------|--------------------------------------|-----------------|
| 1 | M6 x 35 | Hex Socket Head Cap Screw | 2 |
| 2 | M6 x 40 | Hex Socket Head Cap Screw | 2 per damper |
| 3 | M6 x 20 | Hex Socket Head Cap Screw | 4 per bracket |
| 4 | M6 | Spring Washer | 4 per bracket |
| 5 | M6 x 35 | Hex Socket Head Countersunk Screw | Various* |
| 6 | M8 x 45 | Hex Head Screw | 2 per bracket |
| 7 | M8 | Lock Nut ("Half nut") | 4 per bracket |
| 8 | 4.2 x 12 | Self-Tap Countersunk Pozi Head screw | 4 per end plate |

* Depends on length of track

TROUBLE SHOOTING GUIDE - TRACK

| Symptom | Cause | Solution |
|---|---------------------------------------|--|
| Unusual noise or operating efforts. | Debris under door. | Check for obstructions caught under the door and remove. |
| | Door rubbing against floor. | Raise the door: Loosen the 4 screws holding the bracket to the cassette. Loosen the 4 lock nuts on the bolts supporting the door. Tighten the two bolts until the door clears the floor sufficiently. Ensure that both bolts have equal torque (not one hard to turn and one easy). Cycle door. Repeat for other cassette if necessary. If problem resolved, re-tighten the 4 screws and tighten all lock nuts – ensuring that the bolts to not move. |
| | Debris in slide tracks. | Wipe tracks to clear dirt/debris --- if problem still present continue --- If excessive dirt/debris has entered the cassette causing poor movement quality, it may be necessary to replace the slide cassette(s). |
| Slide cassette(s) make continuous loud clicking/snoring sound when door is moved. | Slide cassette(s) unevenly loaded. | Loosen the 4 screws holding the bracket to the cassette – to allow bracket to find its own position. Re-tighten screws. Cycle Door. --- if problem still present continue --- Loosen the 4 screws holding the bracket to the cassette. Loosen the 4 lock nuts on the bolts supporting the door. Tighten/loosen the two bolts until both have equal torque (not one hard to turn and one easy). Cycle door. Repeat for other cassette if necessary. If problem resolved, re-tighten the 4 screws and tighten all lock nuts – ensuring that the bolts to not move. |
| Click at one (or more) consistent positions along travel. | Track fixing screw(s) loose. | Tighten all the fixing screws along the length of the track. |
| Damper unit not slowing door at end of door travel. | Damper unit damaged. | Replace damper unit. |
| Door rattles on slide. | Bracket loose against slide cassette. | Tighten all the bracket fixing screws |
| Energy Chain is worn or damaged | Carrier or chain misaligned | Replace parts |

MAINTENANCE PROCEDURE - ALUMINIUM

Care of Polyester Powder Coat Finish

1. Polyester powder coated aluminium can be damaged during transportation or on site if packaging or handling is negligent. It is recommended that a suitable instruction or note is affixed to materials and or components that have such a powder coat finish. The instruction should request that care is taken when handling – specifically when unloading. Sharp corners on windows and doors should have corner protectors.
2. Installation and damage thereafter prior to building hand over can only be prevented by strict site discipline and communicating terms of good practice to site managers and or responsible staff on site.
3. Where damage occurs to the coating, then this must be repaired immediately. Should damage occur during fabrication or on site, then it is necessary to apply a repair coating immediately. It is recommended that this is done by the fabricator/installer using an APPROVED REPAIR APPLICATOR.

Cleaning of Polyester Powder Coat Finish

The best method of cleaning is by regular washing of the coating using a solution of warm water and mild detergent (e.g., a teepol solution). All surfaces should be cleaned using a soft cloth or sponge, using nothing harsher than natural bristle brushes. (Cleaning of window sections can be conveniently carried out at the same time as glazing cleaning). In hazardous environments washing down should be at regular 3-4 month intervals, and for rural environments washing down should be no greater than 24 month intervals.

Framing – Cleaning & Maintenance

Finish

1. **Every 3 Months.** Clean down anodised aluminium (aggressive environment).
2. **Every 4 Months.** Clean down polyester powder coated aluminium (aggressive environment).
3. **Up to 24 Months.** Clean down polyester powder coated aluminium (non-aggressive environment i.e. rural).

Seals

4. **Every 12 Months.** Check seals for damage, shrinkage or distortion and replace or re-seal as necessary.

Sealants

5. **Every 12 Months.** Check sealant applied to all joints and around fixing screw heads, and seals between aluminium adapters/ frames are intact and undamaged. Replace or re-seal as necessary.

Doors - Cleaning & Maintenance

Finish

1. **Every 3 Months.** Clean down anodised aluminium (aggressive environment).
2. **Every 4 Months.** Clean down polyester powder coated aluminium (aggressive environment).
3. **Up to 24 Months.** Clean down polyester powder coated aluminium (non-aggressive environment i.e. rural).

Hardware

4. **Every 6 Months.** All handles should be lightly lubricated twice a year, and the surface cleaned with a soft damp cloth to remove any dust or grime, taking care not to scratch the surface finish. Grease or oil moving parts or locking points. Use only clean or non-resinous grease or oil. Check all-important components for looseness and wear. If necessary, tighten fixing screws and replace defective parts. In the case of non-standard hardware i.e. not supplied by Axis Automatic Entrance Systems Ltd please consult suppliers approved recommendations.

THE FOLLOWING WORK SHOULD ONLY BE PERFORMED BY AN EXPERIENCED TRADESMAN:

The replacement of fittings

The removal and replacement of door leaves

All adjustments of fittings

Use only cleaning materials that will not abrade the protective corrosion resistance surface of the components.

Seals

5. **Every 12 Months.** Check seals for damage, shrinkage or distortion and replace or re-seal as necessary.

Sealants

6. **Every 12 Months.** Check sealant applied to all joints and around fixing screw heads, and seals between aluminium adapters/ frames are intact and undamaged. Replace or re-seal as necessary.

MAINTENANCE PROCEDURE – BLINDS – MANUALLY OPERATED

Care and Protection of your BetweenGlassBlinds Units

By following a few simple rules during usage and cleaning you can prolong the life of your BetweenGlassBlinds units and assist in retaining their good appearance.

DO

Clean only with mild soaps or detergents added to water, or a proprietary non-abrasive glass cleaner.
Clean using a soft or synthetic window leather.
Use a squeegee or soft cloth for drying the window.

DO NOT

Use brushes or sharp edge items at any time on the Between Glass Blinds units.

WARRANTY

The warranty is provided for the between glass blinds, i.e., the blind system that is located between the two glasses (the Product) and the sealed unit. Liability under this warranty is in two parts. The replacement of the Product in the cases where this warranty applies, and the sealed unit should this break down. This warranty shall be valid for a period of 10 years following the date of purchase of the product and sealed unit subject to the following terms:

During the first five years following the purchase date, warranty coverage is 100% of the replaced product and sealed unit. During the sixth & seventh year following the purchase date, warranty coverage is 50% of the replaced product and sealed unit. During the eighth through the tenth year following the purchase date, warranty coverage is 25% of the replaced product and sealed unit.

Any claims made under this warranty will only be handled subject to the submission of the purchase invoice of the defective item also showing the purchase date.

This Warranty shall only apply to manufacturing or material defects in the Products. The warranty will not cover:

The cost of removal and/or reinstallation of the Product or glasses.

Damages resulting from abuse, misuse, accidents or alterations to the Product or glasses

Damages resulting from failure to follow the instructions with respect to the Product, including in relation to measurement, proper installation, cleaning, maintenance and making changes in the structure of the double-glazed unit.

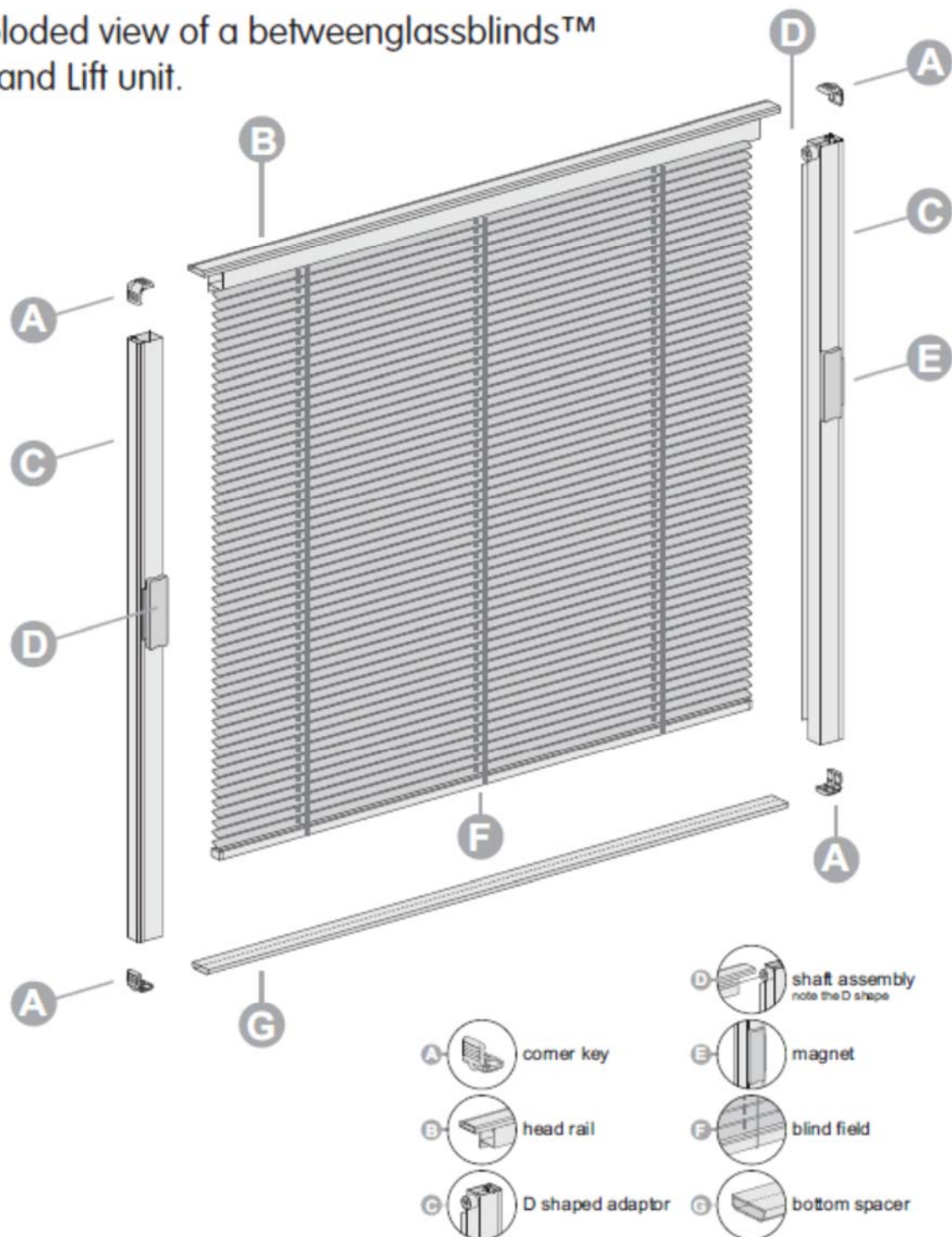
Damages due to exposure of the Product to any chemicals.

Damages due to the exposure of the Product to variable thermal conditions, including fractures resulting from tension created by local or partial heating units, large temperature variations and/or barometric pressure changes and geographical altitude.

Defects in the Product in any case where the insulating double-glazed unit was harmed, or the units were not placed in a vertical position.

Defects to the Product or the Glasses due to the ladder cords touching a coated glass. It is up to the user to make sure that the ladder cords never touch any coated glass.

Exploded view of a betweenglassblinds™
Tilt and Lift unit.



Manual blinds, if fitted, are TILT only and will not LIFT

MAINTENANCE PROCEDURE – SMARTGLASS™

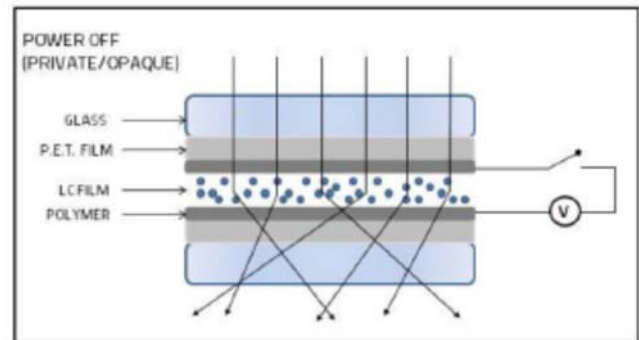
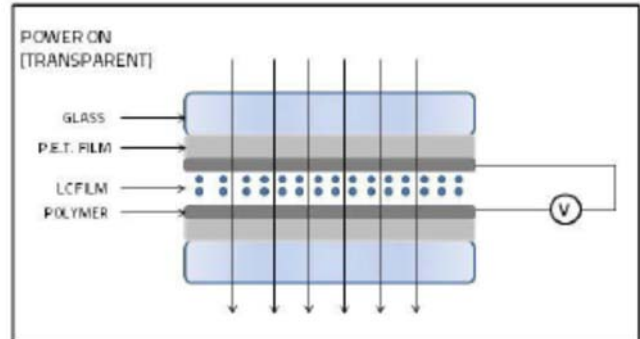
WHAT IS PRIVACY SMARTGLASS?

Privacy SmartGlass allows the user to have instant privacy at the flick of a switch.

SmartGlass is a Liquid Crystal Film interlayer which is laminated between two pieces of glass using EVA. When an electrical current is passed through the glass, it instantly changes from opaque to translucent (clear).

When power is removed from the glass, it instantly changes back to an opaque state.

It is the LC film which provides switchable opaque and translucent conditions of the glass.



REGULAR CHECKS

To ensure many years of problem free operation we recommend that SmartGlass is operated continuously (switched clear) for no longer than 20 hours in any 24 hour period. Check that the advised “resting” periods are being followed

MONTHLY CHECKS

The Energy chain takes mains power from the transformer to the glass unit, this needs to be checked monthly to see that the chain is moving freely (refer to page 18 for details)

ANNUAL CHECKS

We recommend that the client should check that all wiring is in good condition, framing materials are free of any damage and that the transformer and switch are in good visible order. The areas adjoining the Smart Glass including walls, ceilings and floors should be checked for structural integrity, excess humidity and temperature. Should any of these items appear unusual the client should immediately notify the original supplier / installer / contractor or SmartGlass International.

AFTERCARE AND CLEANING

Once the glass is installed, the glazing contractor should make provisions to ensure that glass surfaces are protected from possible damage caused by the construction practices of other trades.

Special care must be taken during the initial cleaning, cleaning during the construction period, or when surfaces are severely soiled in order to prevent marking or damage caused by abrasive contaminants.

In the event that the glass surfaces become heavily contaminated with abrasive particles the surface of the glass should initially be blown with a low pressure compressed air or electrical blower to remove as much of the contaminant as possible.

Any remaining surface contamination should be removed by gently flicking the surface of the glass with a soft bristled cleaning/dusting brush.

Caution must be taken to ensure that any remaining abrasive materials do not become trapped and dragged across the glass surface and the brush; otherwise the surfaces may be scratched.

For routine cleaning, sparingly use a conventional glass cleaning solution applied to lint free, clean, soft, grit-free cloth.

Do not allow any metal or hard parts of the cleaning equipment to have direct contact the glass surfaces.

Exposed SmartGlass surfaces should be cleaned initially with either a low pressure compressed air or electrical blower to remove any abrasive contaminants.

Only once this has been carried out should the glass surface be cleaned with Soft IPA wipes and/or a PH neutral, non-abrasive liquid glass cleaning product applied sparingly to a lint free, clean, soft, grit-free cloth.

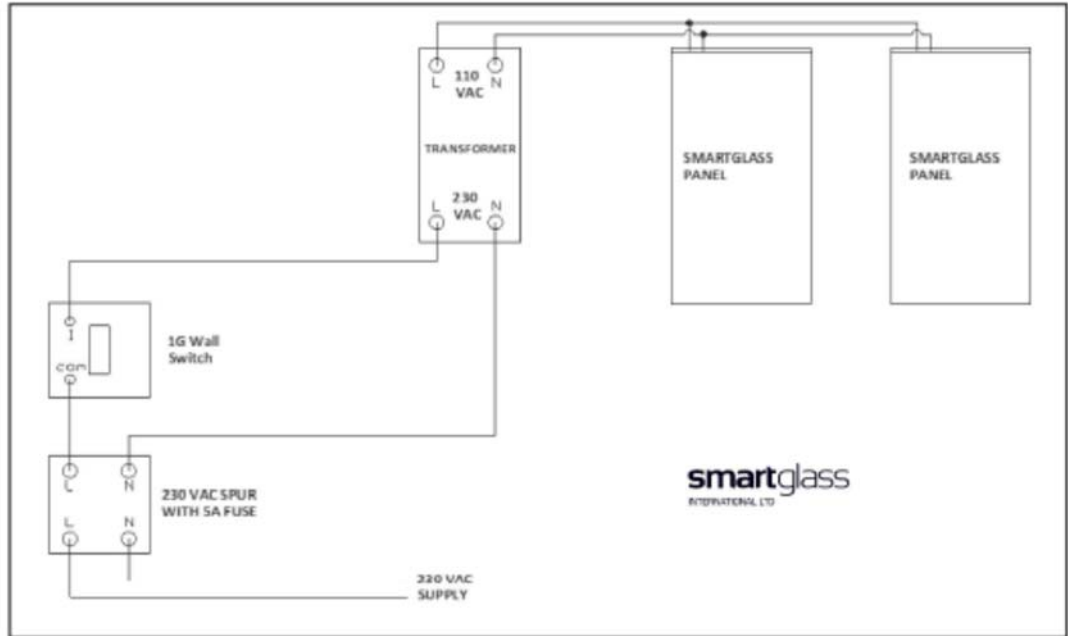
Do not allow any metal or hard parts of the cleaning equipment to contact the plastic surfaces. Please note that the plastic surface of the glass can be marked or scratched if the care and cleaning instructions are not followed.

NEVER ATTEMPT TO CLEAN SMART GLASS WITH A WET CLOTH AND BUCKET OR OTHER WINDOW CLEANING TECHNIQUE WHICH DRENCHES THE SURFACE OF THE GLASS. THIS WILL CAUSE IRREPARABLE DAMAGE TO THE PRODUCT AND WILL INVALIDATE THE WARRANTY.

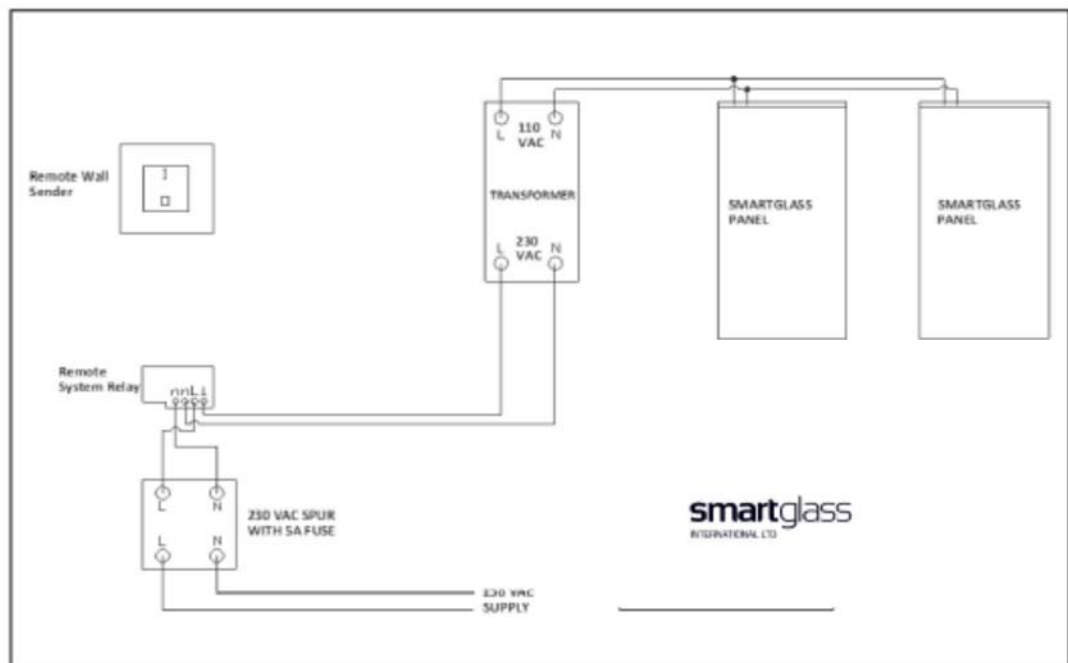
To ensure many years of problem free operation we recommend that SmartGlass is operated continuously (switched clear) for no longer than 20 hours in any 24-hour period.

WIRING DIAGRAMS – SMARTGLASS

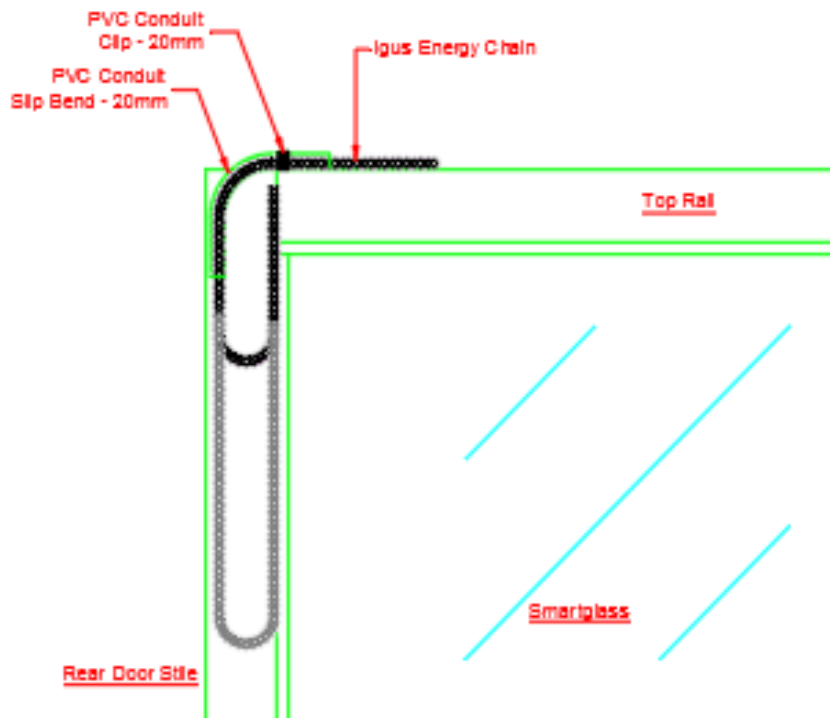
Hard-wired



Remote-Wired



Energy chain



The above Energy chain takes mains power from the transformer to the glass unit, this needs to be checked monthly to see that the chain is moving freely. The chain is located along the top of the sliding door and folds within the frame post as shown above.

Controller



WIRING

All metal frames must be earthed.

Multiple SmartGlass panels should be connected in parallel with the transformer. Ensure that the transformer "in" connects to 230V AC and "out" connects to SmartGlass panel. The output voltage is approximately 65Vac or 110Vac.

SmartGlass uses approximately 7 W/m² in the "on" (clear) state. No electricity is consumed in the "off" (opaque) state.

SmartGlass can be controlled with a single or multiple switches, radio remote control, photo-sensor, infra-red detector, etc.

NOTE: It is vital for correct operation that the switch/remote receiver is positioned on the mains voltage before the transformer/power conditioner. Failure to correctly install the switching mechanism may cause irreparable damage to the Privacy SmartGlass.

Ensure the mains supply is switched off and take care when opening the power transformer, allow a few minutes to cool down. Internal electronic parts may be very hot, this is normal. Only open the power transformer in the areas noted safe for opening, never open the sealed body of the power transformer.

Warning: Do not substitute a higher fuse rating! Fuse rating is critical to properly protect SmartGlass panels.

TROUBLE SHOOTING - SMARTGLASS

Privacy SmartGlass operates at 110V or 65V AC and 50/60Hz, higher voltages and frequency may cause permanent damage.

Electrical service must be performed by a qualified electrician who has read and understood this document. Switch the power ON. Verify that the SmartGlass panel switches. If one or more SmartGlass panels are not operating, check the following: -

1. Check the circuit breaker to verify power. If there is not power from the circuit breaker, reset or replace the circuit breaker.
2. Before turning on the power, test resistance reading between the metal frame and electrode and make sure that the resistance reading is infinite. Otherwise, check short location and insulate electrodes from metal frames.
3. Visually check the condition of all wiring and that connections have not been broken.
4. Check the switch to verify power. If there is no power from the wall switch check the connection or replace the switch.
5. Check input to the power transformer of affected panels to verify power. If there is not input power to the power transformer, check the wiring between the wall switch and the power transformer for damage and continuous current flow.
6. Check output from the power transformer of affected panels to verify power. If there is no output power from the transformer, the fuse may have blown. Replace fuse with the same size and specifications which is available at electronic supply shops such as RS.

NOTE: Ensure not to conduct an insulation resistance test with a fault voltage upon SmartGlass. This will permanently damage the SmartGlass and will void your warranty. Use of any additional materials not specified in this document may invalidate the warranty.

DURABILITY & TESTING

As Privacy SmartGlass™ is a laminate glass, it offers exceptional strength and safety. Privacy SmartGlass™ has been tested in accordance with relevant standards and is compliant with all applicable EU Directives and standards.

Privacy SmartGlass™ panels have been tested in excess of 4 million switch cycles in-house. Certification list and test results are available upon request from SmartGlass.

WARRANTY - SMARTGLASS

SmartGlass warrants that the physical glass products supplied by SmartGlass should be free from defects in materials and workmanship, assuming normal use, for a period of 5 years from date of install unless otherwise specified. The consumable items, transformers remote control systems will be warranted for a period of 2 years from date of install.