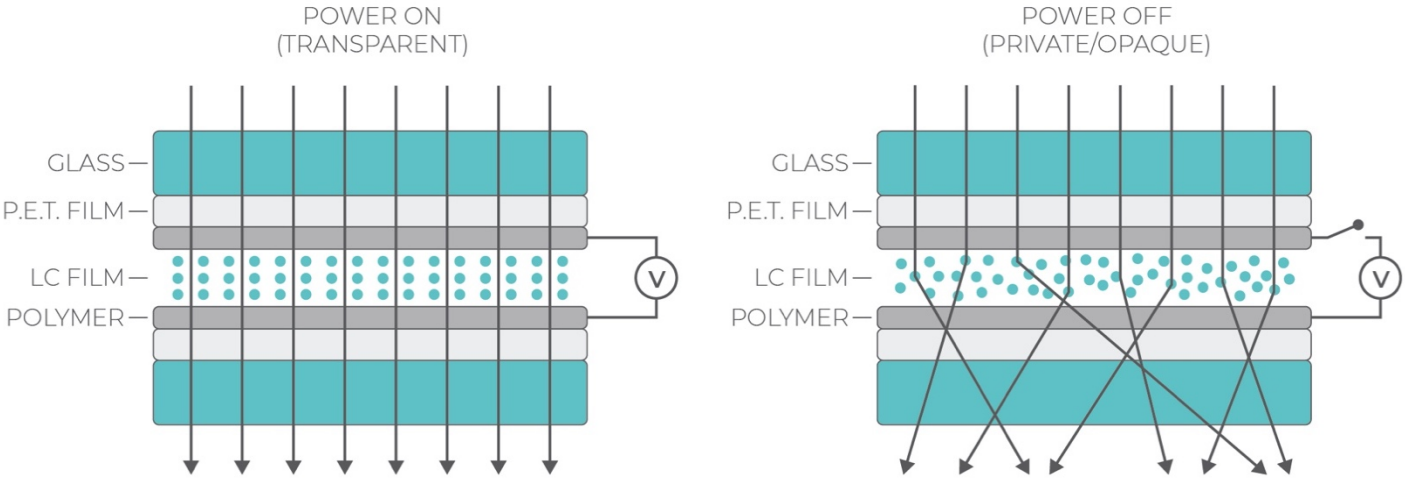
Teknoglass

Technical Document

Teknoglass Privacy Glass
110 Volt Power supply

Privacy Glass allows instant privacy at the flick of a switch. When a 110V AC electrical current is passed through the glass it instantly changes from opaque to translucent. When the power is removed from the glass it instantly changes back to an opaque state.

Two layers of glass encapsulate a liquid crystal film between layers of EVA to make up the laminated privacy glass It is this film which provides the opaque and translucent conditions of the glass. When provided with a voltage set by a supplied power conditioner this film makes the change in transmission.



Specification

Sizes	Maximum 1500 x 3200mm
Environmental	Storage/Operation -10°C to +70
Variations	Shapes/Curved/ Fire Rated X- Ray/Tinted.
Thickness	Standard: 11.5mm, Custom: 9.5mm – 31.5mm, any bespoke solutions.
Electrical	Driving voltage is 110VAC at 6W/m², supplied by an isolating transformer. Different sizes or quantities, dependent upon number of glass panels. Cable exits top centre of panel unless specified otherwise and is of double insulated 0.5mm² dual core flex. Standard length of 3M (can be extended upon request)

Optical sound data

	On (clear)	Off (opaque)
Light Transmission	76%	67%
Light Reflectance	14%	18%
Clarity	76%	4%
Haze Factor	7%	91%
UV Transmission	0.5%	0.5%
Sound control	37dB	37dB

Values are nominal (±5%) and are dependent upon glass configurations used. Above data based on standard 11.5mm glass panel

Technical Data

- Operating Voltage – 110Vac @50HZ
- Power Demands – 6W/m2 Clear State, 0 W/m2 in Privacy State.
- Ingress Protection – IPX7

Durability & Testing

- As the Privacy Glass is a laminate product, it offers a combination of strength and safety. It can be manufactured using Annealed or Toughened glass.
- The Privacy Glass complies with all applicable EU Directives and standards.
- Privacy Glass panels have been tested in excess of 1 million switch cycles.

Maintenance

Once installed maintenance is as simple as keeping the Switchable glass clean. Regular cleaning using only neutral materials is recommended to ensure the panels provide best properties. Do not use solvents are acetic type fluids on the glass.

Please note the requirement to switch the power off from the switchable glass for a minimum period of 4 hours in every 24 hours as detailed in precautions above.

Fault Finding

It is unlikely that an electrical failure will occur. However, if the glass fails to switch please first check there is a power supply to the glass, if not, then check all fuses including the fuse in the transformer. If the glass still does not operate, please contact us.

Installation Methods

Glazing Methods

- Wet Glazing must only be completed using SOUDAL SILIRUB 2 non-acetic sealant. Do not use any other product as this may cause permanent damage and will not be covered under our warranty terms.
- Dry Joints can be used dependent on glass thickness.
- Fixed, opening or sliding frames.
- Door systems with top and bottom rails.
- Incorporated into double glazed units.

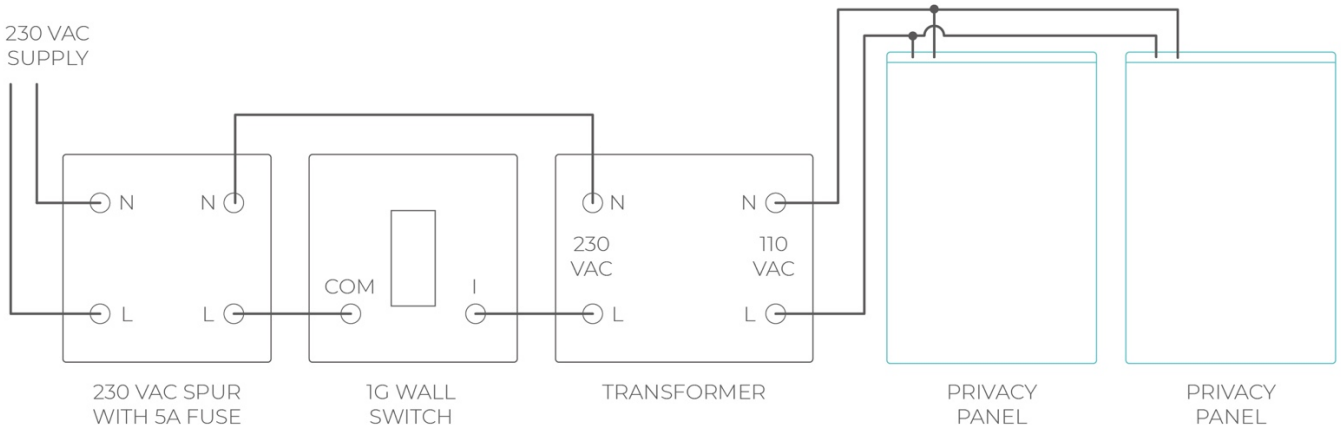
Installation specifics and Precautions

- Prevent any pressure being exerted on the surface of the panel
- Short term exposure to be within - 20°C to + 70°C
- Edge not to come into contact with any type of material specified by us.
- Transformer can be located remotely but requires access for maintenance as these are fused units.
- Electrical control either standard hard wired wall switch or radio remote system both of which must be installed on the 230Vac input side of power conditioner.
- Do not put direct mains supply of 230VAC to the Teknoglass switchable panels as this will cause permanent damage.
- All electrical connections to be completed by a qualified electrician and in line with local rules and regulations.
- Setting blocks to be used of standard width and thickness of all glass panels.
- Power to the switchable glass panels should be turned off for a period of not less than 4 hours in every 24 hour period, otherwise damage could occur to the switching interlayer laminated within the glass.

Warranties

Teknoglass warrants that the physical properties of the products delivered should be free from defects in materials and workmanship, assuming normal use, for a period of 2 years from the date of invoice unless otherwise specified.
Consumable items such as, but not limited to, power conditioners, remote control systems or any other type of switching mechanism will be warranted for a period of 1 year from the date of dispatch.

Hard-Wired Wiring Diagram



Remote Control Wiring Diagram