

Meet SmartLayer.

The System at a Glance



Privacy.

At the flick of a Switch.

VITRM

The System at a Glance

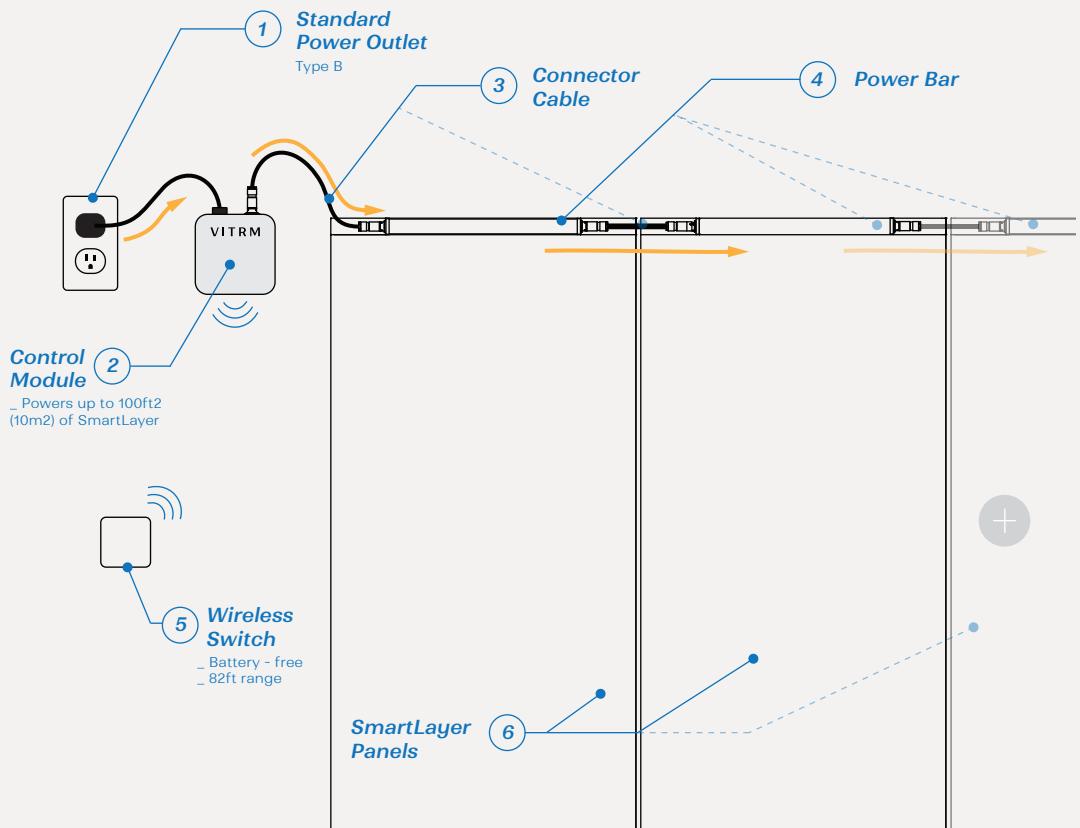
SmartLayer is a **fully retrofittable** switchable smart film, seamlessly powered and controlled via our integrated **Power Bar System**.

The Control Module
with Plug and Play
Connector Cables

The SmartLayer Panel
with Integrated Power Bar

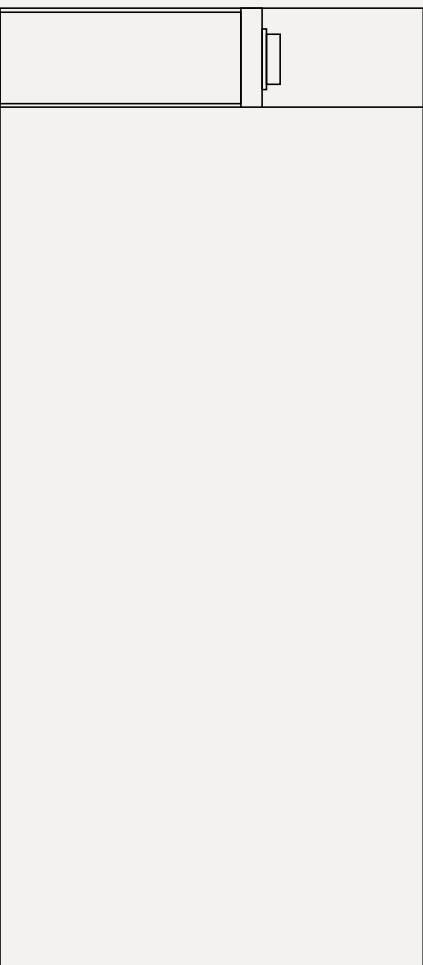
Wireless Switch
Battery free

The Power Behind SmartLayer



**6 Components.
1 Seamless experience.**

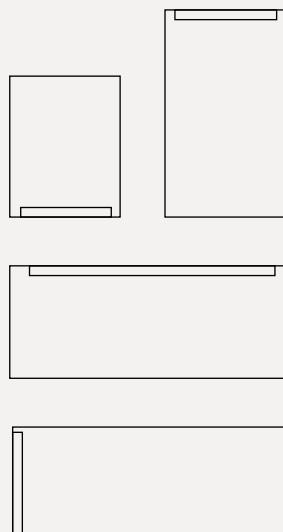
What is the Power Bar?



Power Bar

The Power Bar is a **rigid low-profile enclosure** that contains all the electronics needed to **power** a SmartLayer Panel.

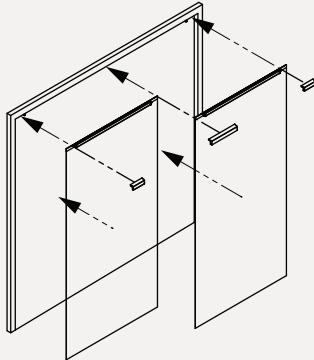
The Power Bar is made to fit and comes **pre-assembled on each panel**. Its orientation can be specified.



Front

Side

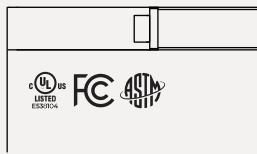
Not just a smart film - a smarter system.



Truly Retrofittable

*Easy installation with the **self-adhesive smart film** and **innovative rigid Power Bar**, designed for precise handling and clean alignment.*

*Transforms your space with **zero alterations** - preserving original surfaces and finishes.*

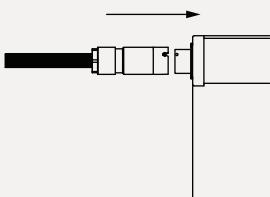


Compliance, Built In

*The **only UL-listed** smart film system - certified for safety, reliability, and performance.*

FCC-certified for electromagnetic compliance.

ASTM-certified for fire safety.



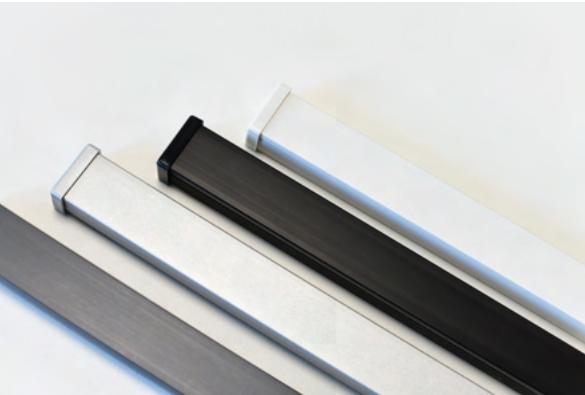
Plug and Play

*No specialist tools or **electricians** required.*

Connect one window or a full elevation using our pre-configured, daisy-chain connection system.

Simple. Scalable. Intuitive.

Designed to Disappear



The SmartLayer Power Bar system is built to disappear.

Available in **white, black, grey, or anodised aluminium**, each finish is designed to complement standard frame systems and blend seamlessly into any interior.



Details Matter.

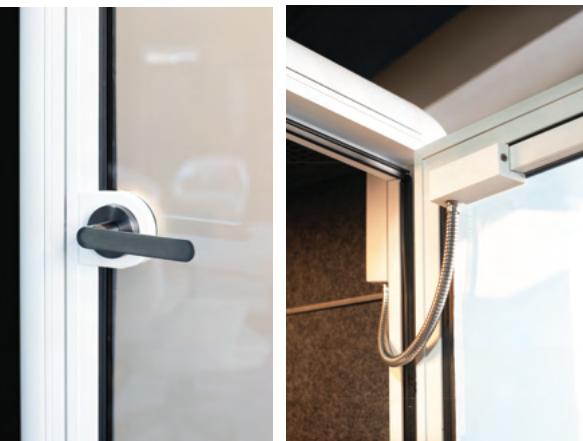
Our **Cable Covers** provide the finishing touch — neatly concealing junctions between Power Bars for a clean, continuous line.

Designed for Real Spaces



SmartLayer isn't just for fixed glazing
The Power Bar system is designed to adapt.

Whether your project includes **glass swing or sliding doors**, our low-voltage cabling and clean door routing options make integration simple and discreet.



Door links use a **flexible armoured conduit** to protect connector cables across moving panels.

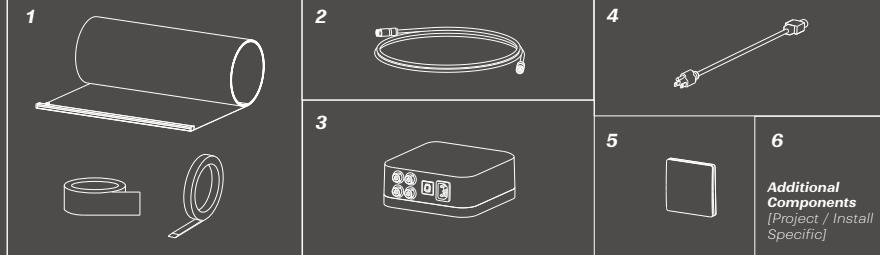
Hinges, handles, and hardware can be precisely cut out for a seamless fit around fixtures — ensuring clean, uninterrupted integration.

Behind the Scenes

Technical Insight (for Dealers & Installers)



Full System Components

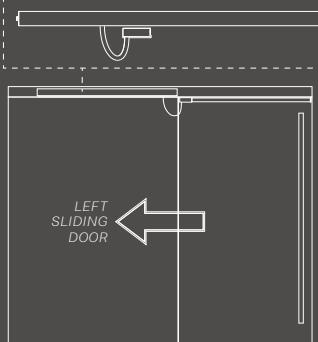


1 _ Switchable Panel Self adhesive with pre-installed rigid Power Bar + Includes a framed edge sealing tape to seal the edge of the panel, and rear glass vinyl to conceal the Power Bar from the outside of the glass. See Panel Specifications on Pg 8 for further details.	2 _ Connector Cable Plug-and-play, low-voltage cables connect Power Bars in sequence. Available in various sizes to suit needs.	4 _ Power Cable Connects Control Module to outlet. IEC C13 USA Various sizes available.
3 _ Control Module Control Modules connect directly to a Standard Type B outlet (110-240V AC). Type: IEC Protection Class II Input voltage: 110 VAC Input current: 6A Output voltage: 45 VAC Output current rating (max): 1A Frequency: 50 - 60Hz Output capacity: 50VA Operating (controlling) Frequency: 433MHz Enclosure material: PC (fire) UL94 V-0 IP Rating: IP30 Size: 6.3x6.3x2.8mm Weight: 3.4lb	5 _ Wireless Switch Battery-free, with up to 82ft (25m) range. Pair multiple switches to control zones or full systems. Switch Type: Push button switch Number of keys: 1 key Power mode: Kinetic energy self-power (no battery) Operational life: 200,000 switchings Operating frequency: 433MHz IP Rating: IP67 Control distance: 80m (outdoor) 25m (indoor) Control Method: Pairing with Controller Installation: Permanently fixed or placed on wall using self adhesive 3M tape (supplied) Working Temperature: -10°C ~ +40°C Warranty: 3 Years Size: 86x86x17mm	6 _ Additional Components [Project / Install Specific] Doors: 6.1. Sliding Door System, 6.2. Swing Door System Enables SmartLayer installation on operable glass doors as specified. [Refer to Pg 8 for door summary]. Additional Switches: Extra wireless switches can be paired to individual or multiple Control Modules, allowing control of panels from multiple locations.

Behind the Scenes

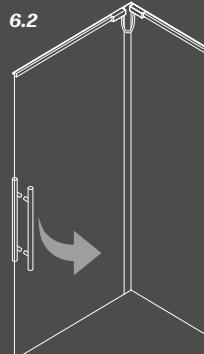


6.1



LEFT SLIDING DOOR

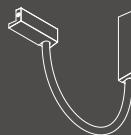
6.2



[a] Swing Door to Panel



[b] Swing Door to wall



6.1 – Sliding Door System

The Sliding Door System allows SmartLayer Panels to be installed on sliding doors.

It mounts above the door on the wall or frame, while the built-in Door Link attaches to the door's surface.

An armoured conduit protects the Power Cable as the door moves.

6.1 – Swing Door System

There are two types of swing Door Links:

[a] between a swing door panel and an adjacent SmartLayer panel, or
[b] between a swing door panel and an adjacent wall.

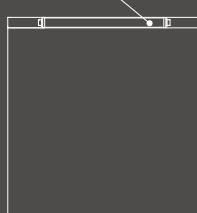
While the Door Links for each scenario vary slightly, both use the same Connector Cable design - protected by a flexible armoured conduit to ensure safe, durable routing across moving panels.

Panel Specifications

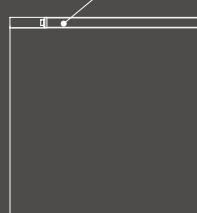
Power Bars Types: Single Power Bar [1 x inlet] and Double Power Bar [1 x inlet + 1 x outlet].

Daisy-chaining: The Double Power Bar is powered through its inlet and supplies power to the next panel via its outlet, enabling multiple panels to be linked in sequence.

Double Power Bar



Single Power Bar



Single power bar

45 VAC

Input voltage:

Output voltage

(to film): 45 VAC

Output current (max): 1 A

Output capacity: 50 VA

Size: 16 x 25 mm

Material: UPVC

Double power bar

45 VAC

Input voltage:

Output voltage

(to film): 45 VAC

(to outlet): 45 VAC

Output current (max): 1 A

Output capacity: 50 VA

Size: 16 x 25 mm

Material: UPVC

Behind the Scenes



Panel Specifications [continued]

Item		Mode	Specification	Testing Standard
Optical Parameters	Visible Light Transmittance	ON	>88%	GB/T 2410-2008 spectrophotometer
		OFF	>60%	
	Parallel Light Transmittance	ON	>66%	GB5317.2-2002
		OFF	<1.5%	
	Haze	ON	<3%	GB/T 2410-2008 spectrophotometer
		OFF	>92%	
	Visual Angle	ON	>160%	Visual
	Blocking of UV light	ON	>99%	N/A
Electrical Parameters		OFF	>99%	N/A
	Blocking of IV light	ON	>30%	N/A
		OFF	>90%	N/A
	Working Voltage	ON	45V AC	Multimeter
Electrical Parameters	Saturation Voltage	ON	<36V	
	Response Time	OFF - ON	<20ms	Liquid Crystal Multi-parameter Electrical Measuring Instruments
		ON - OFF	<10ms	
	Power Consumption	ON	<0.5W/ft ²	Multi-parameter Electrical Measuring Instruments

Item		Specification	Testing Standard
Mechanical	Thickness	400 microns	N/A
	Adhesion	4987 g/cm ³	N/A
Environmental	Working Temperature	-20 °C - 70 °C	Constant Temperature and Humidity Testing Machine
	Storage Temperature	-20 °C - 80 °C	
	Service Life	(ON)> 10 Years	GB18910.5-2008
	Switch Frequency	80 million switches	

Power Coverage

Max Coverage

- Each Control Module powers up to 100ft² (10m²) of SmartLayer film.
- For larger elevations, multiple Control Modules can be linked and operated via paired wireless switches for unified control.

Compliance

SmartLayer is the only UL-listed smart film system on the market.

All electronics are fully enclosed and factory-wired for safety.

Fire performance: ASTM E84 Class A, EN13501-1 Euroclass B

UL: UL 962 (Household and Commercial Furnishings), UL E538104 (Electrified Glazing)

FCC: Complies with IEC 60601-1 (medical electrical devices) EMC requirements

[View all Certifications →]

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