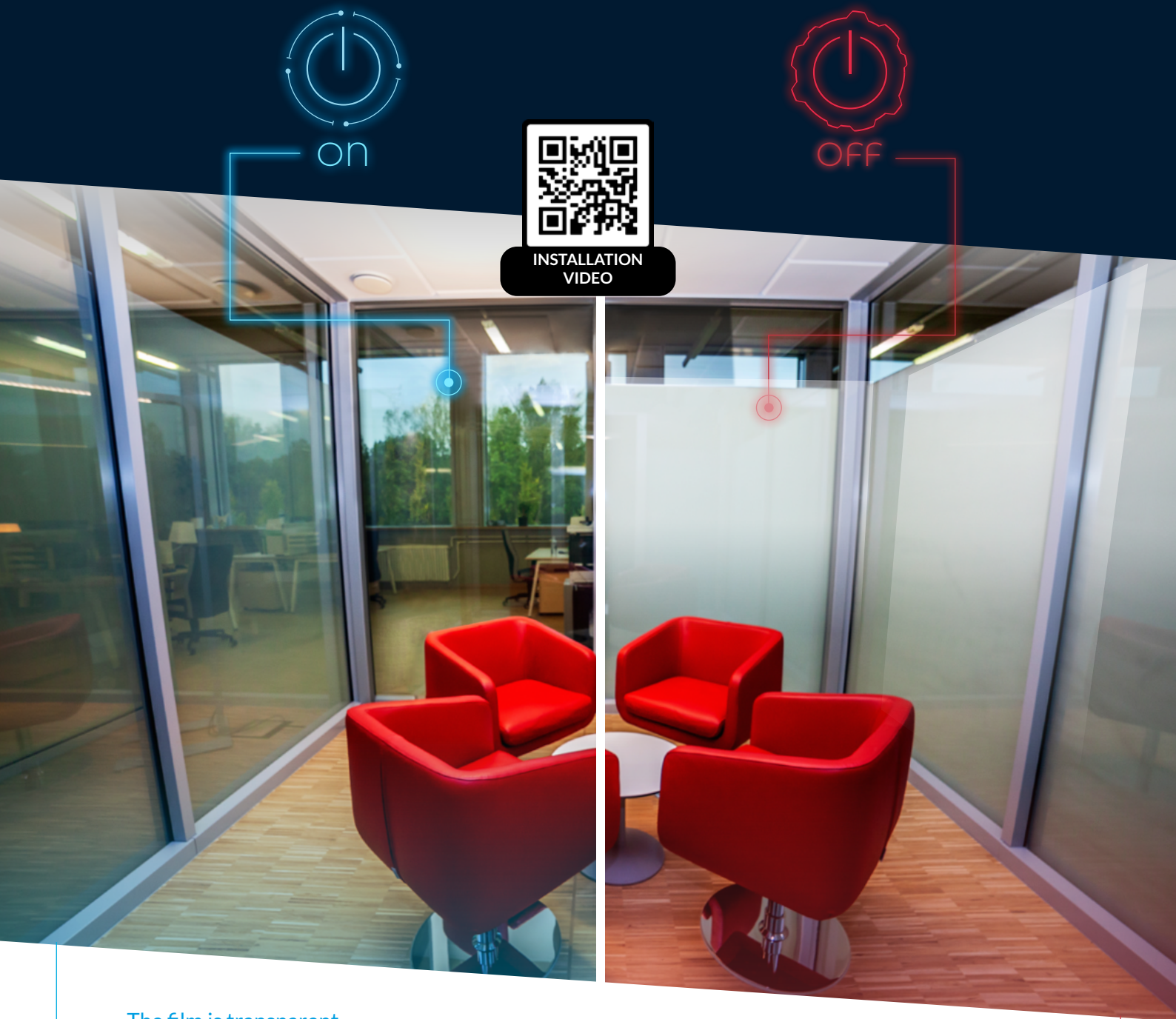


E FILM

CONTROL OPACITY



The film is transparent

The film is opalescent

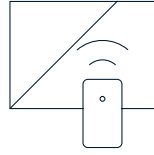
The E-FILM is a high-tech (PET) film that can be used to activate/deactivate the opacity of glass surfaces as you wish. It also offers discretion and privacy on demand.

ADVANTAGES



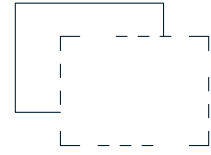
DISCRETION

You choose to be seen or not.
Guaranteed effect day and night.



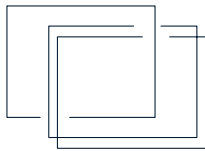
CONTROL

Switch from clear to opaque glass
instantly with a remote control or
a switch.



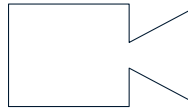
INSTALLATION

You can install the E-FILM on any
type of glass.
The material is also flexible.



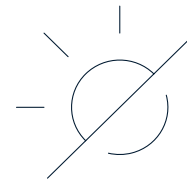
COMBINAISON

The E-FILM is compatible with
solar or safety films.



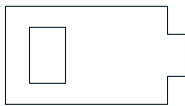
VIDEO

The opaque surface can be used
as a video projection screen.



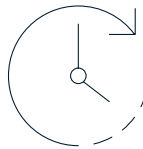
ANTI-UV

UV rays are 99% blocked.



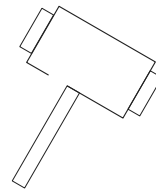
ENERGY

A very low power consumption is
required for use.



DURATION

Production is subject to
quality control to ensure a
reliable lifespan.



STRENGTHENS GLAZING

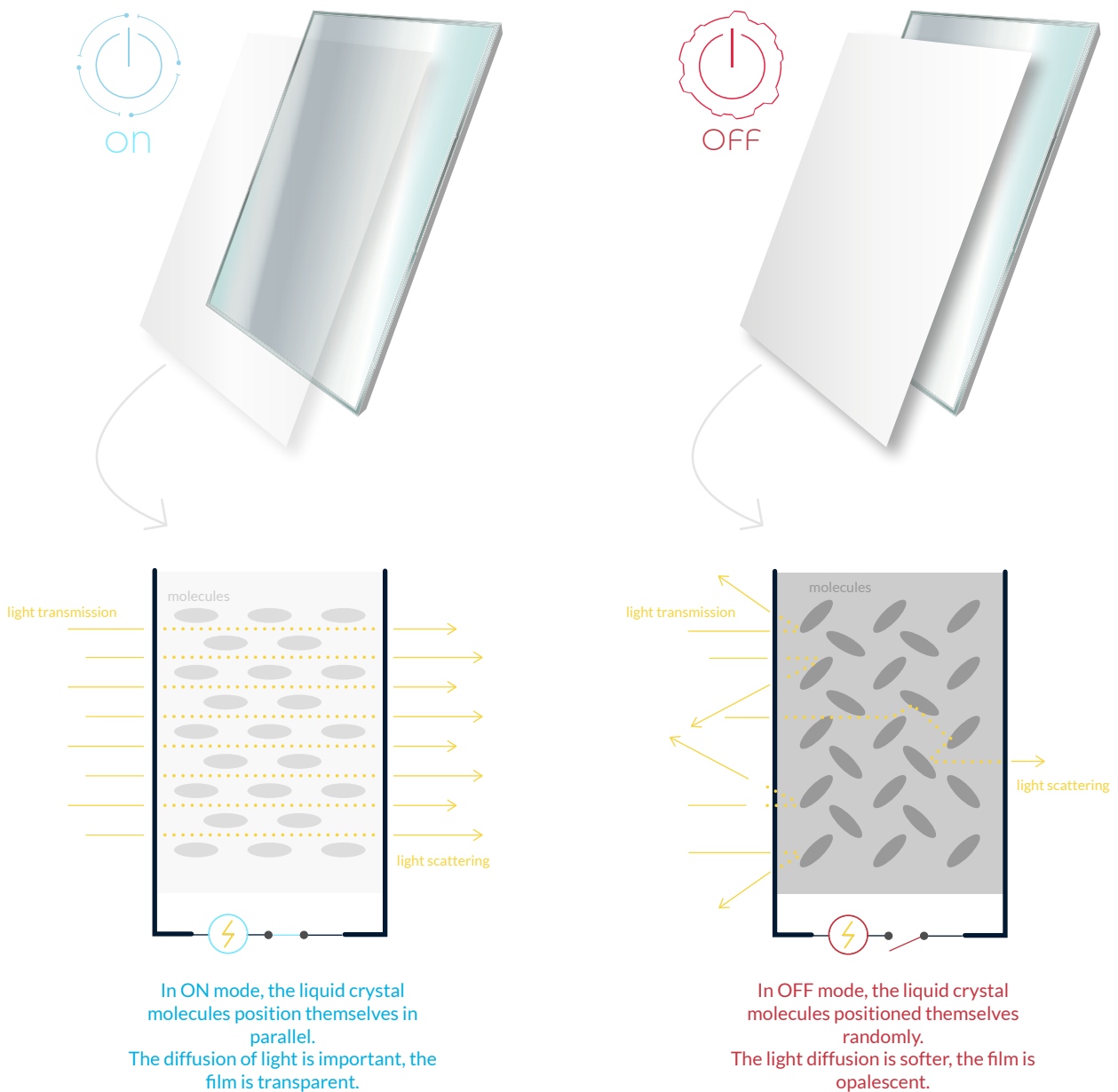
Superimposed on the glass, the film
holds the pieces of glass together in
the event of breakage.

OPERATION

The E-FILM has electro-optical characteristics and consists of liquid crystal polymer molecules.

This film has the ability to switch from a transparent (ON) to an opaque (OFF) state via a remote control or switch.

The orientation of the liquid crystal molecules determines the opacity of the film. This process is activated under the voltage of an electric field.



APPLICATION

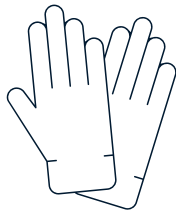
The application of the E-FILM requires a meticulous cleaning of the surface on which it will be applied. The surface must be free of dust, grease and other dirt. Antistatic spray is particularly efficient.

A compatibility test should be carried out to avoid bubbling and other problems.

We strongly advise against direct sunlight (installation on facades). When two or more E-FILM panels have to be installed side by side on a single pane of glass, we recommend leaving a gap of 0.5 to 1 mm

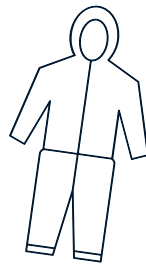
between each piece of film. This prevents an electrical short circuit from damaging the edges of the film.

WE RECOMMEND:



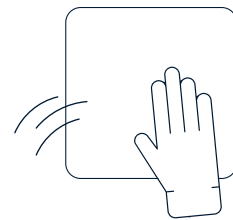
GLOVES

It is preferable to wear antistatic gloves throughout the process to avoid grease marks.



OVERALLS

It is recommended to wear an antistatic suit to avoid any transmission of dust from the surrounding environment to the glazing.



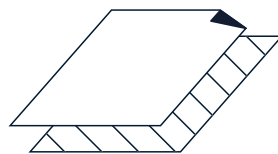
MAINTENANCE

It is recommended to wait for 30 days before to clean the glazing once the E-FILM has been applied. Only use non-abrasive cleaning solutions and a microfiber cloth.



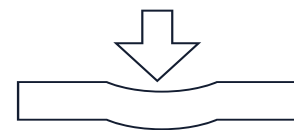
APPLICATION

The E-FILM is a dry application product. Never apply wet, as this will permanently damage the film.



PROTECTION

To minimise risk, do not remove the top liner until the installation is complete.

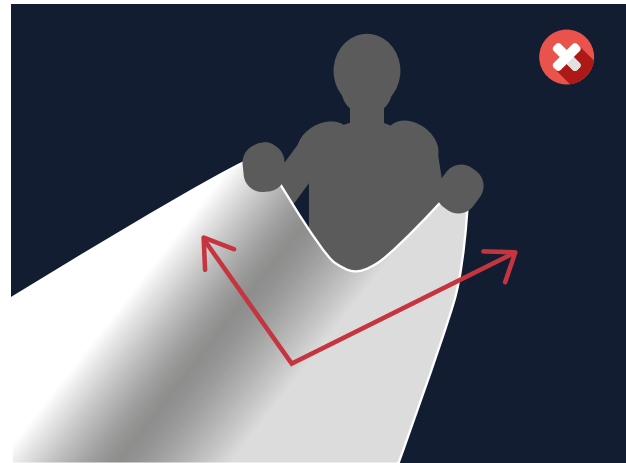
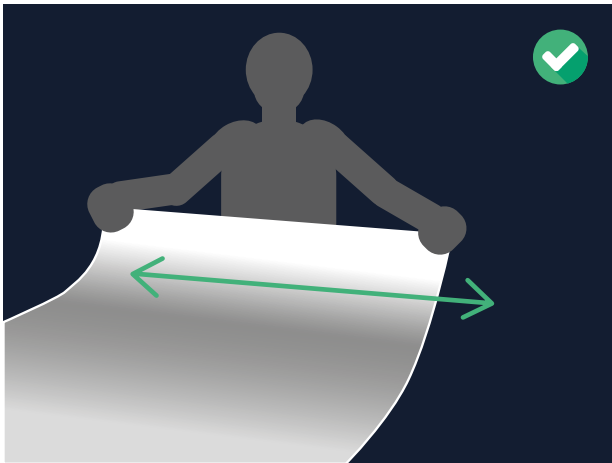


PRESSURE

The E-FILM should never be installed in situations where it may be subjected to a pressure or mechanical stress.

Example: Unlike other window films, this film should not be placed under a frame whether it is aluminum or plastic.

IMPORTANT:



- Never bend or curl the E-FILM
- Always keep the film flat and straight
- When handling the film, pay particular attention to the edges.

APPLICATION AREAS :

The **E-FILM** is suitable for all applications and sectors:

- **Retail:** shop windows, events, video projection rooms, beauty salons, etc.
- **Administrations:** conference and administration centres, town halls...
- **Companies:** offices, meeting rooms, coworking spaces, open spaces, banks, hotels...
- **Private individuals:** windows, shower cubicles, bay windows, etc.
- **Hospitals:** surgical units, private medicine, emergency rooms...

TECHNICAL INFORMATION

- **Thickness :** 540 microns
- **Dimensions :** Custom made (width 1520mm max.)
 - **Current :** 0,08 A/m²
 - **Voltage (output) :** 60 V (AC 50 / 60 Hertz)
 - **Power consumption :** ~ 7 Watts / m²
 - **Reponse time :** <20ms
- **Lifetime :** >50 000 h (avoid +24 h continuous)
- **Warranty (film and electrical accessories) :** 2 years
- **Data per colour:**

	WHITE	GRAY	BLACK
Visible light transmission	On : 82% Off : 19%	On : 51.7% Off : 11%	On : 8.4% Off : 1%
UV absorption	99%	99%	99%
Infrared rejection	>90%	>90%	>96%

ELECTRICAL INSTRUCTIONS

Standard transformer parameters (others on request)

- **Power :** 200 W
- **Input :** 220-240VAC or 110VAC
 - **Output :** >48V / 65V
 - **Frequency :** >45-70Hz
 - **Output current :** 3A
- **Size :** (200W); 255 * 158 * 60mm; 5,7 kg

Remote control parameters

- **Battery (not included):** 1 piece A23 / 12v battery
 - **Feature:** ON / OFF (optional variator)
 - **Standby power consumption:** $\leq 0,04$ mW
- **Control distance:** max. 25 meters (within sight)
 - **Frequency:** >45-70Hz
 - **Size:** 120x46x14mm

Operating conditions

Operating temperatur: -20 °C upto 60 °C

An order content:



• 1 Transformer

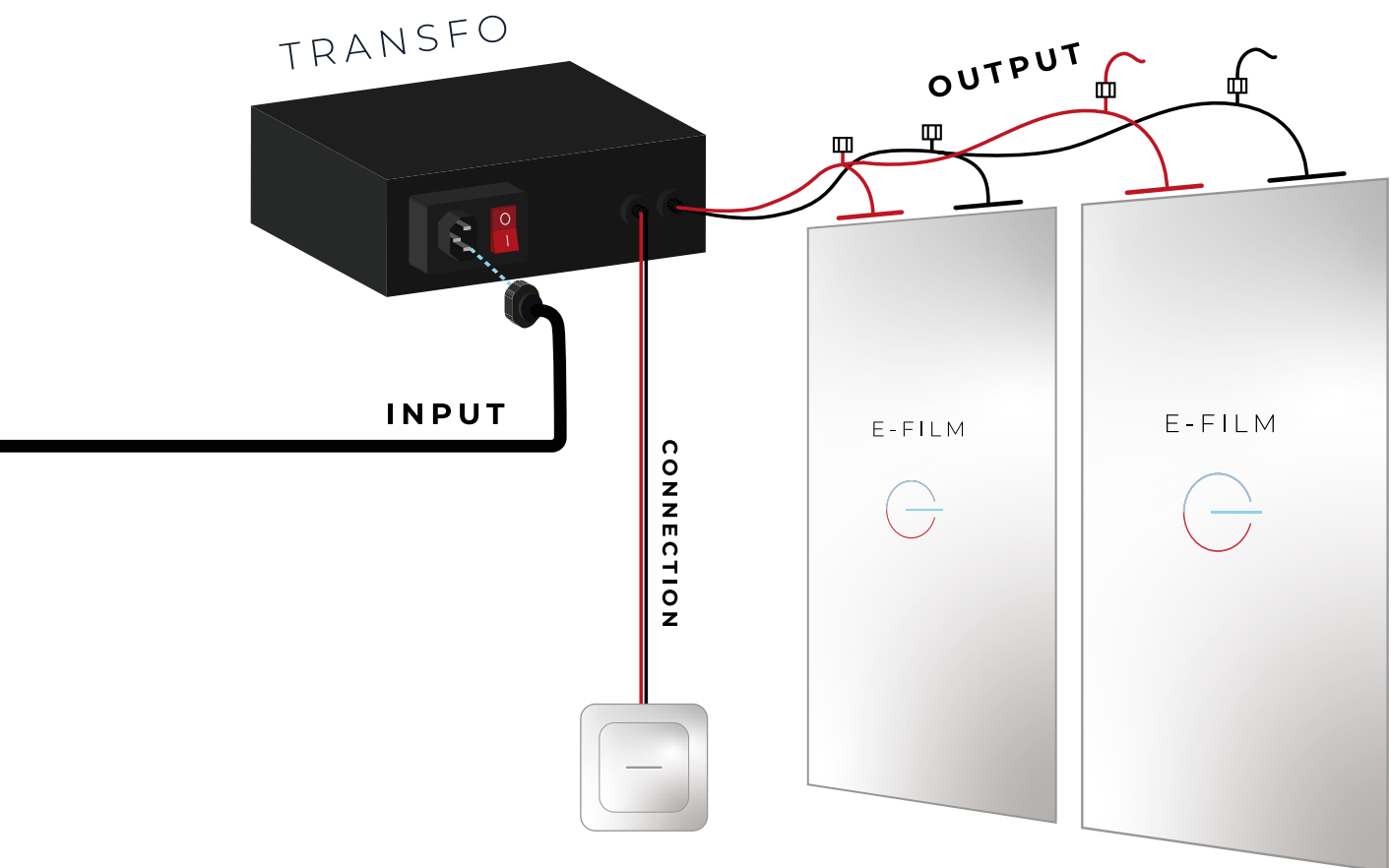
• 1 Remote Control

1 1 Power Cable 220V-(transfo)

2 1 Output Cables 60V-(E-FILM)

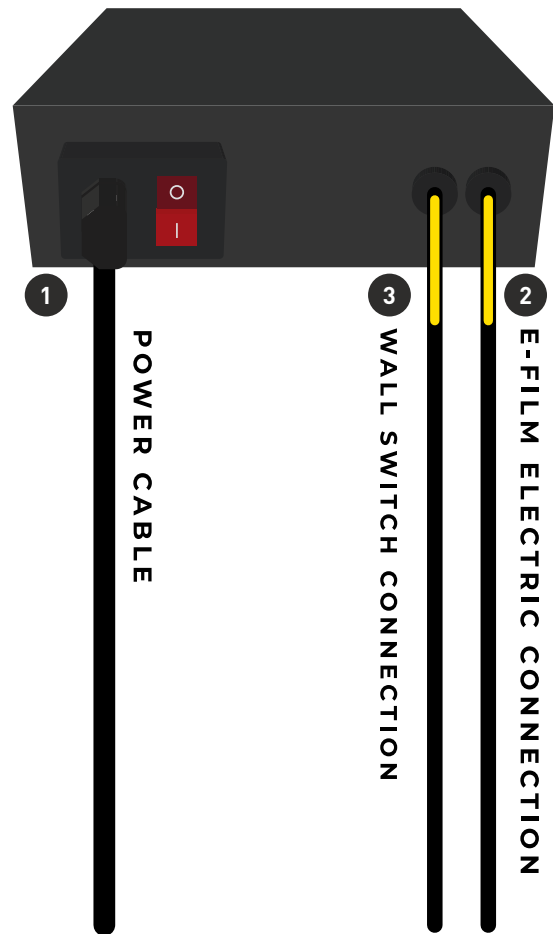
3 1 Wall Switch Cable

(to be specified >as a replacement for the remote control)



Precautions

1. The transformer must absolutely be kept away from sources of heat and water. Ideally the transformer should be installed in a flush-mounted box connected to the electrical panel, with a real-time clock, ensuring a daily power cut.
2. Any use of the product with a higher input voltage or output power than specified is prohibited.
3. All wiring operations must be carried out by an authorized electrician and with the power switched off beforehand..
4. Before connecting the film and the transformer, the power must always be switched off.
5. All terminals must be strictly in accordance with the wiring diagram, otherwise serious damage may be caused.
6. **We strongly recommend that the remote control be mounted on a wall near the filmed window so that it is visible each time the remote control is used.**
7. **To avoid continuous «ON» mode, ask the electrician to add a timer to the transformer supply.**
8. Put the transformer in an electrical box.



How to install the remote control



- Check that the wires are correctly connected at both ends.
- Make sure your battery is not weak and replace it if necessary.
- Switch off the transformer
- Press and hold the top and middle buttons together and turn on the transformer
- Release the buttons immediately once the film has become transparent.
- Everything is connected.