14330181

Wired Inline Switch - IR

Technical Datasheet

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I. Products Overview

What is Ariginal Wired Switch?

An Ariginal wired switch is a control device directly connected to the lighting system via physical cables. Unlike wireless switches, it relies on electrical wiring to transmit commands for turning lights on/off, dimming brightness, or adjusting color temperature. It's ideal for environments where a reliable, hardwired connection is preferred.

What is Ariginal Wired Inline Switch?

The Ariginal Inline Switch is a wired switch installed between the power source (LED Driver or Distributor) and the LED light, acting as a bridge for individual control, providing a simple and effective way to turn the light on or off without affecting other lights in the system.

What is Ariginal Wired Inline IR (Hand Swipe) Switch?

The Ariginal Wired Inline IR (Hand Swipe) Switch is a type of wired inline switch that uses infrared (IR) sensor technology for operation. This switch allows users to control the lighting by swiping their hand over the sensor's detector, offering a touchless, convenient method to turn lights on and off or adjust them.
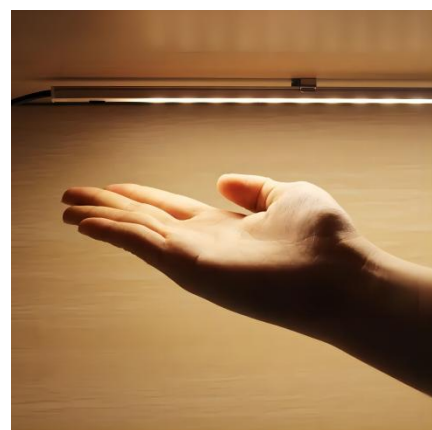
Applications:

Recessed or surface-mounted in cabinets or under cabinets.

II. Product Code

The descriptions in this document are applicable to the following products only:

Ariginal Wired Inline IR (Hand Swipe) Switch (Kernel Series).

| Item Code	Input Voltage	Drill Hole	Control Method	Dimension/mm
14330181	12V/24V DC	8mm, recess installation	IR (Hand swipe)	65*13*9
14330111	12V/24V DC	10mm, surface-mounted	IR (Hand swipe)	65*13*9

III. Features

The Ariginal "Kernel" Wired Inline Switch unlocks endless connection possibilities, empowering users to explore and discover their own way of configurations.

A switch with infinite connection gameplays.

Its main features include:

❶ A Switch that bridges power and light.
Two connectors, one for power, one for lighting.
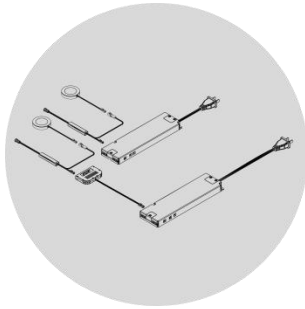
The Ariginal "Kernel" Series Wired Inline Switch features two distinct connectors: one connects to the power source, while the other links directly to your LED lights, like a bridge to joint the two electrical parts.

With the built-in sensor positioned between the two connectors, Kernel allows you to control each light individually, providing precise and customizable lighting management for any environment.

❷ There is always a new gameplay.
Get power from LED Driver, distributor or more.
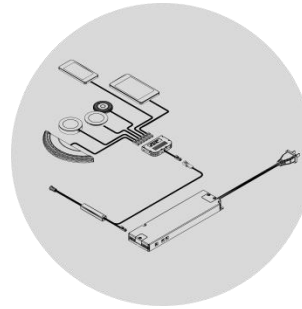
With the Ariginal Kernel Wired Inline Switch, you can tap into a world of possibilities. Its power connector effortlessly connects to a variety of sources—LED drivers, distributors, receivers, and beyond. This adaptability empowers you to configure your lighting system in innovative ways, ensuring your setup is as dynamic and versatile as your imagination.

Users can continually discover and develop new gameplay and innovative configurations for their lighting systems.

❸ Touchless operation.
Keep hygienic, convenient, and durable.

Ariginal "Kernel" series IR switch uses infrared (IR) sensor technology to detect hand movements near the switch. You can turn the lights on or off by simply swiping your hand near the sensor, without touching the switch. This touchless operation is hygienic, convenient, and durable, as it eliminates
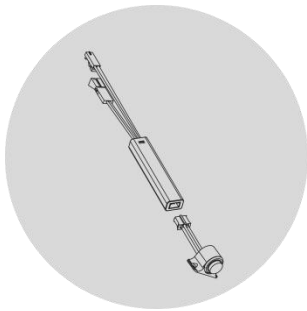
❹ Optional control logic.
Sync, or async, it's up to you.
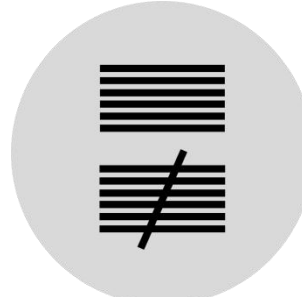
With the Ariginal Kernel Wired Inline Switch, you have the power to choose how your lighting operates. Opt for synchronized control, allowing all lights to turn on, off, or adjust brightness simultaneously with a single Kernel unit. Alternatively, use distributors to manage your lights

the need for physical contact and prevents wear on the switch. You can easily control the lights even when your hands are wet. Ideal for spaces like kitchens or bathrooms, it provides a clean and easy way to control lighting.

asynchronously, giving you the flexibility to control each light independently at different times.

❺ Detachable body and connectors.
Installation is markedly simplified.

"Kernel" features a detachable design for its processor body, detector, power connector, and LED connector. This modularity simplifies installation, allowing users to easily push wires through wood panels and other surfaces without hassle.

Each component can be easily detached and reconnected, exemplifying our vision to provide simple, intuitive lighting solutions that make your setup straightforward and user-friendly.

❻ Optional mounting type.
Recess or surface mounting, simultaneously supported.
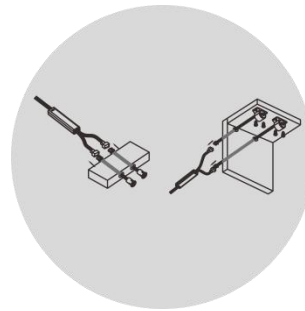
The Ariginal Kernel Wired Inline Switch provides flexible mounting options to suit your preferences.

Recessed mounting enhances aesthetics by allowing the switch to blend seamlessly into your space, creating a clean and unobtrusive look.

On the other hand, surface mounting is designed for ease of installation, made possible by an additional surface-mounting base included in the package.

Whether you prioritize style or simplicity, Kernel has you covered, allowing you to achieve the perfect balance in your lighting setup.

### ❼ Aesthetics is brought to a higher level.
The detector is so small that it does the job without noticing.

"Kernel" elevates your lighting aesthetics with its discreet design, thanks to its incredibly compact

❽ Turn on/off, and dim brightness.
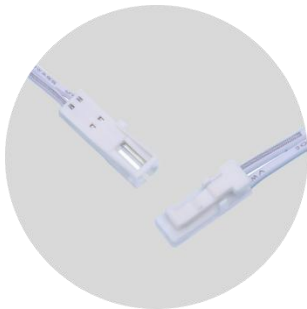Swipe to turn on/off, hover to dim brightness.

The Ariginal Wired Inline IR (Hand Swipe) Switch allows for both on/off control and brightness

detector that seamlessly integrates into any environment without drawing attention.

This minimalist approach allows you to enjoy the functionality of advanced lighting control while maintaining a clean, uncluttered look in your space, enhancing the elegance without compromise.

dimming:

Swipe to Turn On/Off: A quick swipe of the hand near the sensor turns the lights on or off.

Hover to Dim Brightness: Holding your hand near the sensor (without swiping) will gradually dim or brighten the lights, giving you precise control over the light intensity.

❾ Plug and Play.

Disconnect and reconnect the power and light as many times as you like.

"Kernel" embraces a user-friendly design with its plug-and-play functionality. You can easily disconnect and reconnect the power and light whenever you need, allowing for effortless adjustments or maintenance without hassle.

The universal Dupont connector adopted by "Kernel" realizes seamless compatibility with third-party LED drivers and LED lights, extending your choices and reducing your inventory.

❿ Works with both 12V and 24V.

One switch handles both 12V and 24V systems.

"Kernel" is designed for ultimate convenience, allowing you to use a single switch for both 12V and 24V lighting systems. This compatibility eliminates the need for multiple switches, so whether you're working with a 12V setup today or fitting with a 24V system in the future, you can rely on the same Kernel switch to provide consistent performance.
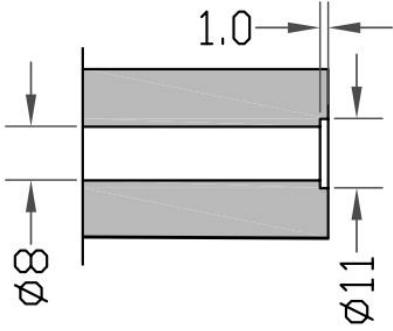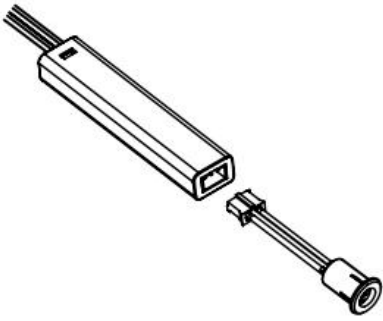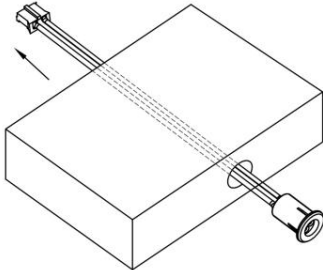
IV. Dimensions & Structures
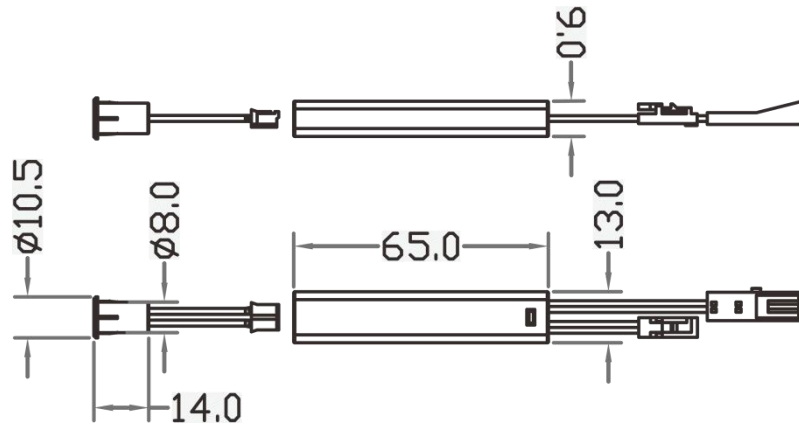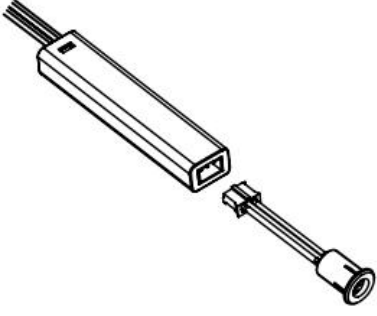
No.	Picture	Structure name
1	See above	Sensor detector
2	See above	Wire (detector to sensor body, detachable)
3	See above	Dupont male connector (connect LED driver)
4	See above	Dupont female connector (connect LED light)
5	See above	Wire (sensor body to power and light)
6	See above	Sensor body

V. Specifications

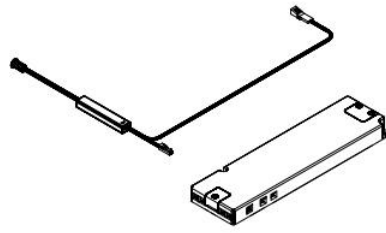| Parameter	Value
Input voltage:	12VDC/24VDC, both supported
Output voltage:	12VDC, 24VDC, both supported
Output current:	3A max.
Static working current:	6mA
Functions:	Swipe hand to turn on/off lights; hover to dim brightness.
Detection range:	5~12cm
Installation:	Recessed/Surface-mounted, optional
Waterproof rating (IP)	IP20
Dimensions (sensor body):	65*13*9mm
Dimensions (sensor detector):	Φ10.5*14mm
Dimension (drilling hole)	Φ8mm
Connection cable length (to detector)	1000mm
Connection cable length (to power)	1000mm
Connection cable length (to lamp)	1000mm
Connection cable assembling	Wire (detector to sensor body) is detachable; Wire (sensor body to power and light) is pre-assembled in factory.
Materials:	Plastic
Product color:	Customizable, black typ.
Operating temperature (C °)	-20~45 °C
Warranty period:	5 years

VI. Installation

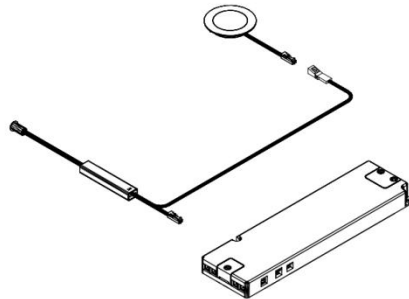How to install (recess) Ariginal Wired Inline IR (Hand Swipe) Switch?

No.	Action	Picture	Description
Step 1:	Drill the Hole		Using a drill, create a hole from the front of the cabinet panel to the back, where the switch will be installed. The diameter of the hole should be 8mm to fit the wire and sensor components comfortably.
Step 2:	Detach the Wire (Detector to Sensor Body)		Carefully detach the detachable wire that connects the sensor detector to the sensor body. This step makes it easier to pass the wire through the drilled hole and allows you to handle the wire more efficiently during installation.
Step 3:	Push the Wire and Detector Through the Panel		From the front of the cabinet panel, push the wire and detector through the hole toward the back. Ensure that the detector is positioned on the front side of the panel, as this will detect the hand swipe. You can use a thin rod or push tool to help guide the wire through the hole if necessary.
Step 4:	Reattach the Detachable Wire		Once the wire and detector are in place, reattach the detachable wire to connect the sensor detector to the sensor body. This should be done securely to ensure proper function and avoid any loose connections.

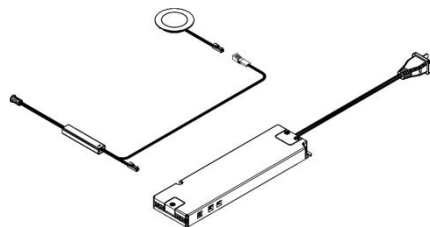| Step 5:	Connect the DuPont Male Connector to the LED Driver		Now, take the DuPont male connector and connect it to the LED driver. This connection ensures that the switch will be able to control the power to the LED lights. Ensure that the connection is snug and secure.
Step 6:	Connect the DuPont Female Connector to the LED Light		Next, take the DuPont female connector and plug it into the LED light. This completes the power circuit, allowing the IR switch to control the light's on/off and brightness functions.
Step 7:	Power Up and Test the Sensor		Finally, connect the power supply and turn on the system. Test the Ariginal Wired Inline IR (Hand Swipe) Switch by swiping your hand to turn the light on and off, and hovering your hand to adjust the brightness. Ensure the sensor is working properly and that the light responds to the hand swipe and hover actions.

How to install (surface-mounting) Ariginal Wired Inline IR (Hand Swipe) Switch?

Ø10mm hole

<3cm
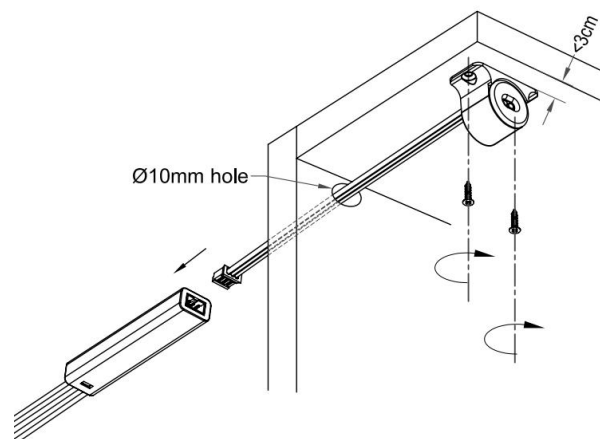
Step 1: Drill the Hole

Using a drill, create a hole through the back panel of the cabinet or wood panel where the wire will pass through. The hole should have a diameter of 10mm to accommodate the wire and sensor components

comfortably.

Step 2: Screw the Mounting Base
Screw the mounting base onto the underside of the wood panel or desired mounting surface. Ensure the base is firmly attached and aligned. The distance between the detector to the edge of the panel should be less than 3cm.

Step 3: Detach the Wire (Detector to Sensor Body)
Detach the detachable wire that connects the sensor detector to the sensor body to make it easier to route the wires through the mounting bracket.

Step 4: Route the Cables Through the Mounting Bracket
Carefully route the cables through the mounting bracket. Ensure that the cables are not pinched or damaged during this step.

Step 5: Clip the Mounting Bracket into the Mounting Base
Clip the mounting bracket into the mounting base. They will automatically lock into place, securing the sensor in position.

Step 6: Reattach the Wire and Connect
Reattach the detachable wire between the sensor detector and sensor body. Then, connect the DuPont male connector to the LED driver and the DuPont female connector to the LED light.

Step 7: Power Up and Test
Once everything is connected, power up the system and test the sensor by swiping your hand to turn the light on/off and hovering to adjust brightness.

Additional Tips:
- Positioning the Sensor: Make sure the sensor detector is positioned in a location where it can easily detect hand movements, such as near the edge of the cabinet or furniture panel.
- Wire Management: Use cable clips or zip ties to neatly organize any excess wires behind the panel, ensuring that everything stays tidy and secure.
- Testing Before Final Assembly: It's always a good idea to test the connections and functionality of the switch before fully assembling or securing everything in place.

VII. Usage

Using Ariginal Wired Inline IR (Hand Swipe) Switch is easy and intuitive. Simply swipe your hand near the sensor to turn the lights on or off, and hover to adjust the brightness. Hold your hand near the sensor to dim the light, and hover again for 2–3 seconds to brighten it. The switch provides convenient, hygienic, and precise control, ideal for spaces where traditional switches are impractical.
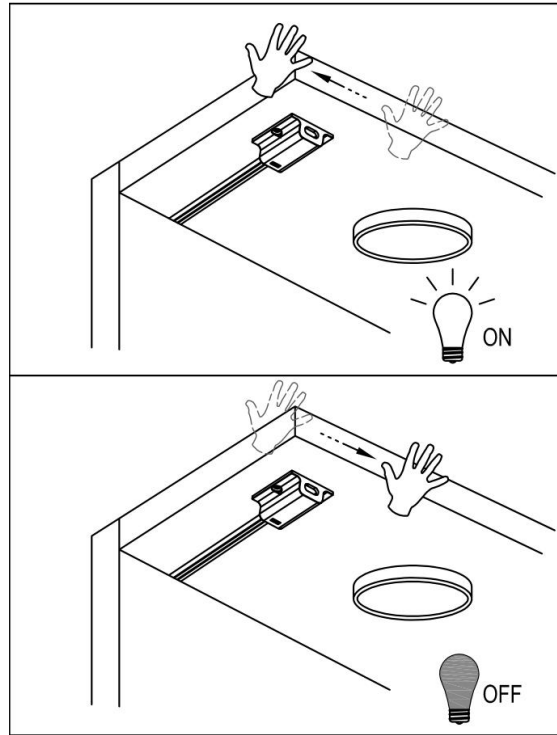
Turning On and Off (Swipe to Turn On/Off):
To turn on: Swipe your hand near the sensor detector. A quick swipe will activate the light.
To turn off: Swipe your hand near the sensor again. The light will turn off immediately.

Dimming the Brightness (Hover to dim)
To dim the light: Hold your hand near the sensor detector without moving it. The longer you hover, the lower the brightness will go. After achieving the desired dimness, move your hand away to set the brightness.
To brighten the light: Hover your hand over the sensor again for 2–3 seconds to gradually increase the brightness. The longer you hover, the brighter the light will become.

This intuitive hand swipe and hover system makes controlling your lighting easy and hands-free, offering both convenience and precise adjustment.

Delight Furniture.