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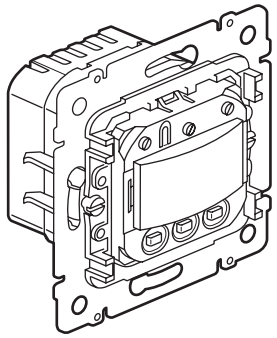
Automatic Switch 1000 W Transmitter-Receiver PLC Pro 21™

Cat. No. : 7756 21



CONTENTS **Page**

1. USE

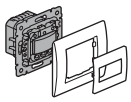
This power line carrier switch controls lighting devices connected directly to it for ON and OFF, or timed ON :
- in auto mode on detection and end of detection,
- in manual control on the front face,
- from a flush-mounting, modular or mobile, power line carrier or radio transmitter (through a PLC/RF interface),
- from an IR remote control (through an IR/PLC receiver).

This switch, when it is the transmitter (leader), controls "In One By Legrand" receiver products by simple detection.

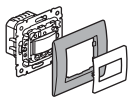
2. RANGE

The complete switch comprises 3 parts sold separately:

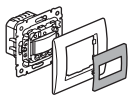
- support-mechanism assembly, automatic switch 1000 W



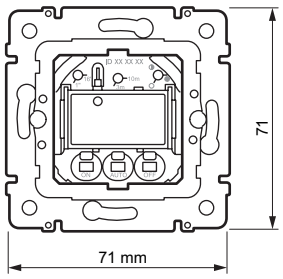
- plate (not supplied),

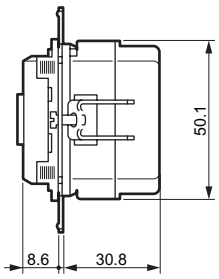


- rocker or cover plate (not supplied).



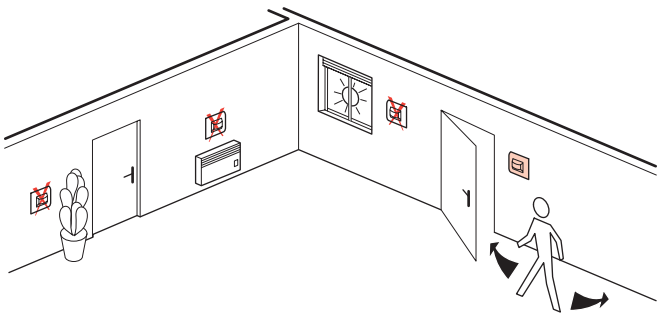
3. OVERALL DIMENSIONS



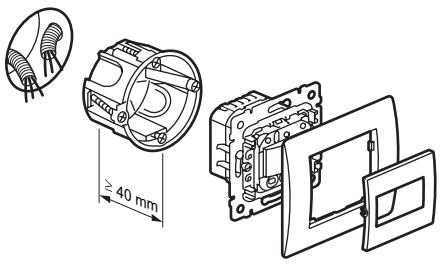


4. PREPARATION

The ideal location for an automatic switch must respect some basic principles :
- place the automatic switch in a circulation area,
- keep the automatic switch away from heat sources (e.g. radiator),
- do not hide the automatic switch behind objects that can interfere with detection,
- do not install the automatic switch near light sources (e.g. window) to optimise the proper operation of the brightness threshold.



4.1. Preparation



Once the flush-mounting box, minimum 40 mm deep, is mounted, follow these steps :
- cable the dimmer switch (see chapter 5. Connection),
- fix the support-mechanism assembly onto the flush-mounting box by claws or screws,
- position the plate (not supplied) on the support-mechanism assembly,
- clip on the back plate supplied with the rockers,
- program the dimmer switch (see chapter 8. Operation),
- clip the rockers onto the support-mechanism assembly.

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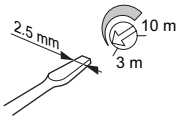
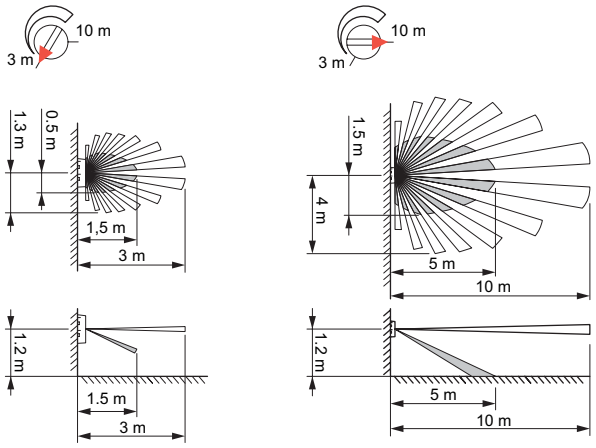
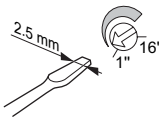
4. PREPARATION (cont.)

4.2. Detection zone adjustment
Detection zone varies between 3 and 10 metres



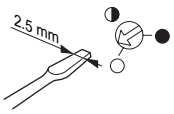


4.3. Time delay adjustment
Time delay varies between
1 second and 16 minutes.

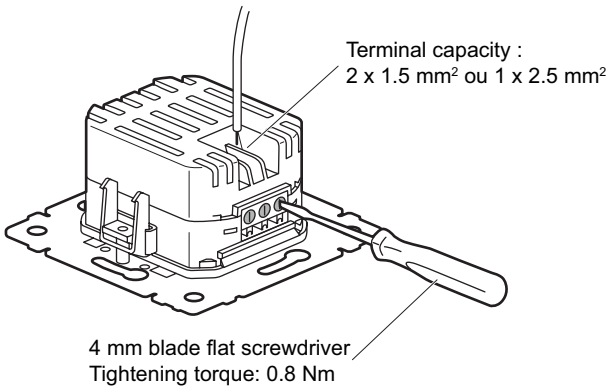


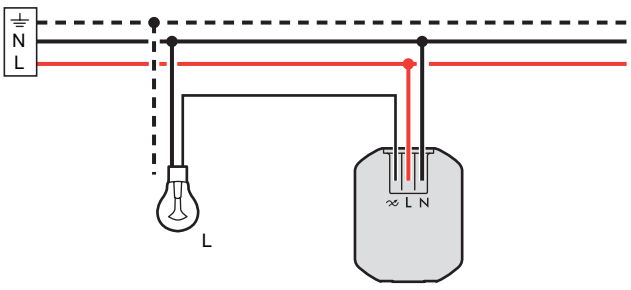
4.4. Brightness threshold adjustment
Brightness threshold varies
between 1000 and 3 lux

(daylight : ○ , night : ●)



5. CONNECTION





6. GENERAL CHARACTERISTICS

6.1. Protection index
IP 2x IK 04

6.2. Electrical characteristics
Voltage : 100-240V~
Frequency : 50-60 Hz
Max. controlled power:

	①	②	③	④	⑤
110 V	500 W	500 W	500 VA	2 x 36 W	80 W
230 V	1000 W	1000 W	1000 VA	2 x 36 W	160 W

① Incandescent
② Halogen
③ ELV halogen with ferromagnetic or electronic transformer (*)
④ Fluorescent tube
⑤ Fluocompact lamp

(*) Note :
Allow for the transformers' efficiency. For example, for an automatic switch the maximum light load for ELV halogen will be 700 W with a 70% efficient transformer.
Further, a transformer should be loaded to 60% of its power.

Consumption :
- At rest : 0.6 W
- On load : 0.9 W

6.3. Material characteristics
Weight : 66 g.
Materials :
Dimmer switch: polycarbonate
Support : steel F14T2

Self-extinguishing :
Mechanism and support : 850°C, 30 seconds

6.4. Climatic characteristics
Storage temperature : -25/+45°C
Operating temperature : +5/+45°C

7. PERFORMANCE

This product is a power line carrier transmitter/receiver.

Power line carrier :
Frequency : 132.5 kHz
Frequency modulation
Transmission speed : 2400 baud
Signal amplitude : 1.2 Vrms
Minimum reception signal : 10 mVrms
Two-way products with no feedback system
Line pick up standardised to EN 50 065-1
Products conform to EN 50 065-1, -2.1, -7 and NF EN 60 669-2.1

General information :
Status memory on return of power

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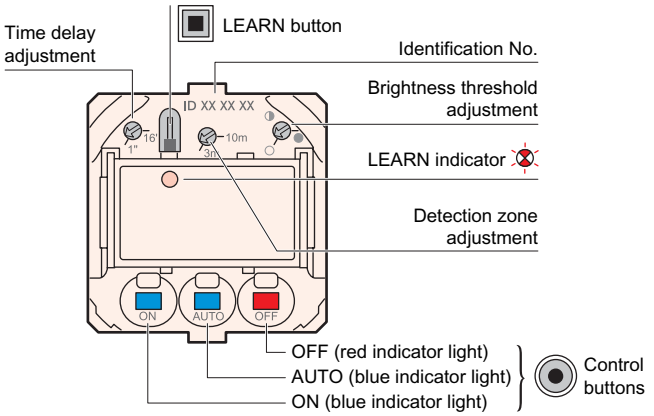
8. OPERATION

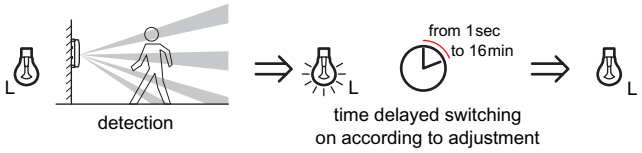
8.1. Commissioning

Automatic switch

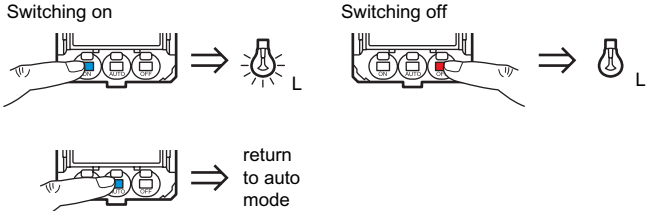


8.2. Local operation

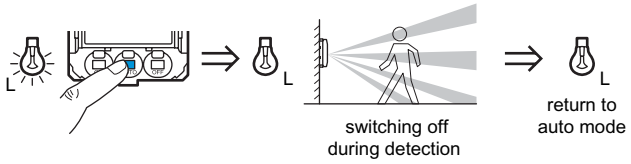
- auto mode

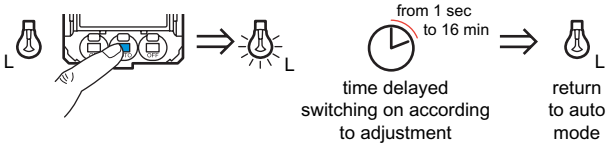


- manual mode



- override mode





8.3. Programming method

It is recommended to deactivate the factory configuration with two successive presses on the learn button of each product.

1. Choose the product that is to be the transmitter (leader) of the scenario to be programmed.
2. Press the learn button.
3. Press the control button of the transmitter that is to start the scenario.
4. Press the learn button of the receiver product.
5. Press the control button of the receiver.
6. Repeat steps 4 and 5 on all the scenario receivers.
7. Finish programming by pressing again on the transmitter's learn button.

8. OPERATION (cont.)

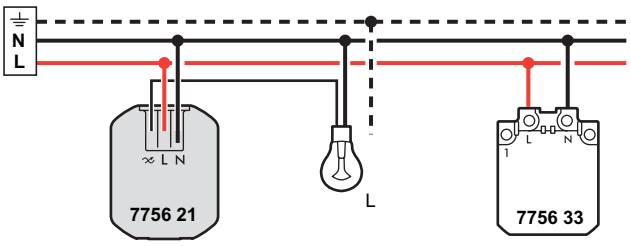
8.4. Operation as a receiver

The automatic switch has a lighting circuit output piloted through a transmitter

It can be on/off piloted by remote controls :
- power line carrier lighting control,
- power line carrier or radio scenario switch through the PLC/RF interface,
- Omizzy home internet server.

It can be on/off piloted by remote controls :
- radio mobile scenario switch (through the PLC/RF interface) and IR remote control (through an IR/PLC receiver).

Example 1 :
Control an automatic switch (cat. no. 7756 21) by a single switch (cat. no. 7756 33)



Action	Indicator status	L
Transmitter single switch (Cat. no. 7756 33)		
Press on the learn button	✳	☀
Press on the ON button	✳	☀
Receiver automatic switch (Cat. no. 7756 21)		
Press on the learn button	✳	☀
Press on the ON button	✳	☀
Transmitter single switch (Cat. no. 7756 33)		
Press on the learn button	⊗	☀
Receiver automatic switch (Cat. no. 7756 21)	⊗	☀

The ON button of the single switch will switch on the load connected to the automatic switch.
The load will go off by pressing OFF on the single switch, by pressing OFF or AUTO on the automatic switch.

✳ rapid blinking ✳ slow blinking ✳ flash ⊗ no blinking

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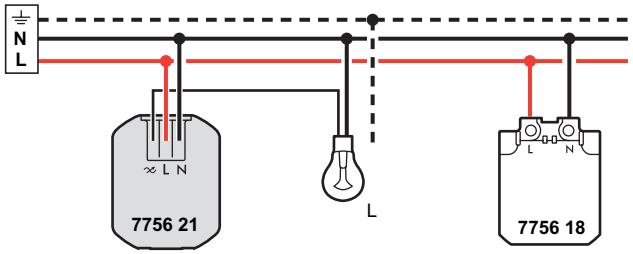
8. OPERATION (cont.)

Example 2 :
Control an automatic switch (cat. no. 7756 21) by a scenario switch (cat. no. 7756 18)



Action	Indicator status	L
Transmitter scenario switch (cat. no. 7756 18)		
Press on the learn button	rapid blinking	flash
Press on button 3	rapid blinking	flash
Receiver automatic switch (cat. no. 7756 21)		
Press on the learn button	rapid blinking	flash
Several options available :		
Press on the ON button ON override (1)	rapid blinking	flash
Press on the OFF button OFF override (2)	rapid blinking	flash
Press on the AUTO button Auto mode (3)	rapid blinking	flash
Press on the AUTO + ON buttons Timed switching on, then auto mode (4)	rapid blinking ON	flash
Press on the AUTO + OFF buttons Switching off during detection, then auto mode (5)	rapid blinking OFF	flash
Transmitter scenario switch (cat. no. 7756 18)		keeps previous status
Press on the learn button	no blinking	
IReceiver automatic switch (cat. no. 7756 21)		keeps previous status
	no blinking	

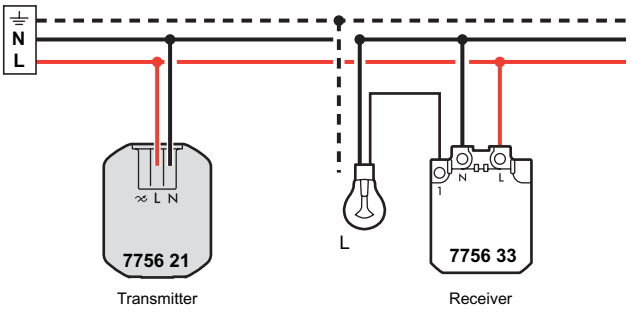
Pressing on the button 3 of the scenario switch will :
- (1) switch on the lamp connected to the automatic switch,
- (2) switch off the lamp connected to the automatic switch,
- (3) put the automatic switch into auto mode,
- (4) switch on the lamp connected to the automatic switch for the set time,
  The automatic switch will return to auto mode after time delay.
- (5) switch off the lamp connected to the automatic switch so long as there is detection and put the automatic switch into auto mode.

8. OPERATION (cont.)

8.4. Operation as a transmitter

The automatic switch has one control direction.
On detection, it can control other "In One by Legrand" products : lighting switches, dimmer switches for ON/OFF and other automatic switches; as well as roller shutter switches for up/down only.

Example 1 :
Control an automatic switch (cat. no. 7756 21) by a single switch (cat. no. 7756 21)



Action	Indicator status	L
Transmitter automatic switch (cat. no. 7756 21)		
Press on the LEARN button	rapid blinking	flash
Two options available :		
Two options available : Press on the ON button The scenario starts with a detection (1)	rapid blinking	flash
Press on the OFF button The scenario starts with a detection and remains active for the set time, after time delay, the loads return to the previous status (2)	rapid blinking	flash
Receiver single switch (cat. no. 7756 33)		
Press on the LEARN button	rapid blinking	flash
Press on the ON button	rapid blinking	flash
Transmitter automatic switch (cat. no. 7756 21)		
Press on the LEARN button	no blinking	flash
Receiver single switch (cat. no. 7756 33)		
	no blinking	flash

With a detection :
- (1) the lamp connected to the single switch will switch on (no automatic switching off),
- (2) the lamp connected to the single switch will switch on for the time set on the automatic switch.

rapid blinking | slow blinking | flash | no blinking

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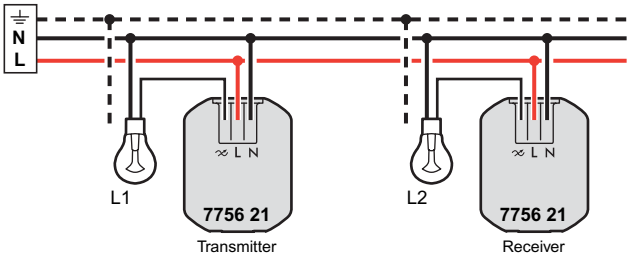
8. OPERATION (cont.)

Example 2 :
Produce a two-way switch with two automatic switches (cat. no. 7756 21)



Action	Indicator status	L2
Transmitter automatic switch (cat. no. 7756 21) Press on the LEARN button		
Press on the OFF button		
Receiver automatic switch (cat. no. 7756 21) Press on the LEARN button		
Press on the ON button		
Transmitter automatic switch (cat. no. 7756 21) Press on the LEARN button		
Receiver automatic switch (cat. no. 7756 21)		

Action	Indicator status	L1
Receiver automatic switch (cat. no. 7756 21) Press on the LEARN button		
Press on the OFF button		
Transmitter automatic switch (cat. no. 7756 21) Press on the LEARN button		
Press on the ON button		
Receiver automatic switch (cat. no. 7756 21) Press on the LEARN button		
Transmitter automatic switch (cat. no. 7756 21)		

All the loads connected to each of the detectors will switch on regardless of the automatic switch that detects. The loads will remain on for the time set on the tripping detector. It is recommended to set the same time delays.

8. OPERATION (cont.)

8.5. Operating rules

Each product has a unique identification number (ID).
A receiver can be piloted by 16 transmitter controls at most.
The compatibility between the various "In One by Legrand" products is given in technical data sheet F00388EN.

This product can provide two types of RESET :

8.5.1. Reset on the control button :
- of the receiver, the control button is no longer piloted through the various scenarios it was a part of.
- of the transmitter, the scenario is deleted.

Action	Indicator status
Transmitter or receiver Press on the learn button	
Press on the ON button for 10 seconds	5 seconds and then

8.5.2. Reset on the LEARN button (return to factory settings) :
- of the receiver, the control buttons are no longer piloted through the various scenarios they were a part of.
- of the transmitter, all the scenarios are deleted.

Action	Indicator status
Transmitter or receiver Press on the learn button	
Press on the learn button for 10 seconds	5 seconds and then

9. TROUBLESHOOTING

Problem	Cause	Solution
The learn indicator comes on for 5 seconds	Learning is impossible	Install compatible products
The learn indicator comes on for 10 seconds	The number of saved tranmitters is more than 16	Delete the blank scenarios
During learning the learn indicator stops blinking slowly	The learning mode shuts down after 10 minutes (if no action)	Restart the learn mode
The programmed function button does not work	After pressing on the learn button, the learning of the function button is done in the minute that follow	Restart the learning

rapid blinking — slow blinking — flash — no blinking