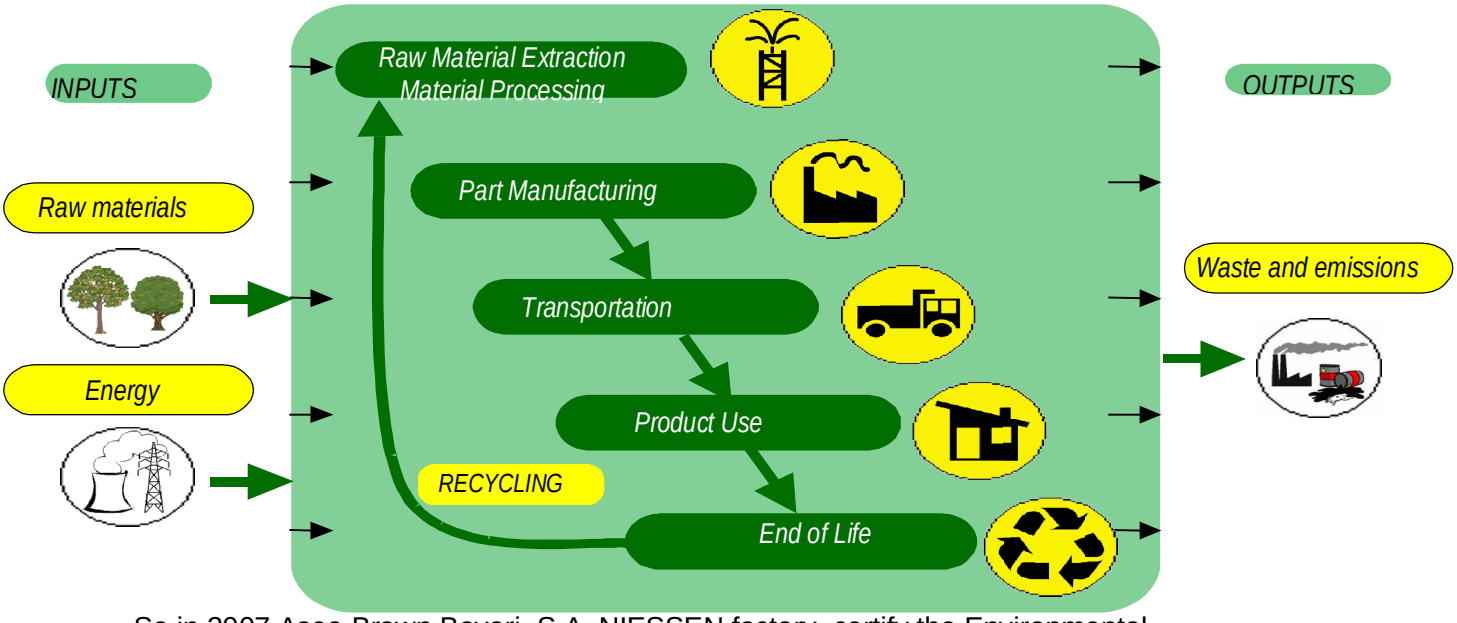
Asea Brown Boveri, S.A. LPWA Wiring Accessories NIESSEN Factory	Communication to the agents involved in the life cycle	**DOC 42-03-04** Revisión Nº 2 Enero 2013

Our policy of continuous improvement also requires a demanding and responsible work, which has led to the implementation of the UNE-EN-ISO 14006: Environmental management systems Guidelines for incorporating ecodesign in our Quality Management System and Environment.

Ecodesign is understood as a process integrated within the design and development that aims to reduce environmental impacts and continually to improve the environmental performance of the products, throughout their life cycle from raw material extraction to end of life.

In order to be of benefit to our organization and to ensure that we achieve our environmental objectives, we carry out ecodesign as an integral part of the business operations of our organization.



So in 2007 Asea Brown Boveri, S.A. NIESSEN factory, certify the Environmental Management Design and Development process according to UNE 150301. To subsequently adapt the system to the international standard UNE EN ISO 14006.

AENOR

Ecodiseño

UNE-EN ISO 14006

Asea Brown Boveri, S.A. LPWA Wiring Accessories NIESSEN Factory	Communication to the agents involved in the life cycle	**DOC 42-03-04** Revisión Nº 2 Enero 2013

1 - CONSIDERATIONS FOR USE OF ECODESIGNED PRODUCTS

Millenium range

- Make strong electrical connections; this will prevent heat loss in connections, and unnecessary energy consumption.
- Recycle cardboard packaging.

2 - CONSIDERATIONS FOR RECYCLING:

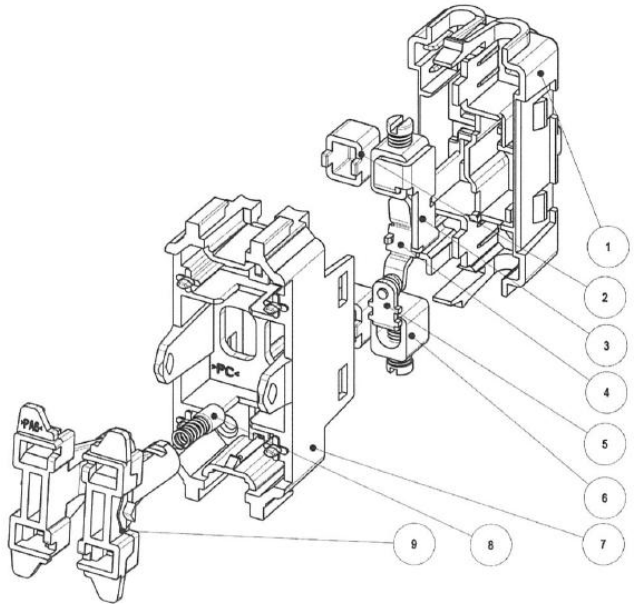
- The plastics are recyclable, and they include a marking inside (indicating the material they are made of). They can be disassembled.

3 - ENVIRONMENTAL IMPROVEMENTS:

- Elimination of use of halogenated flame retardants, by using halogen-free materials.
- Minimum cardboard for recyclable packaging
- Minimum number of components, thereby savings in energy and raw materials in manufacturing processes.
- Use of water based paints, avoiding the use of solvents harmful to the environment.
- Use of signaling lights for switches with LED technology involving energy savings up to 25%. Longer life of the LED to other lighting alternatives.

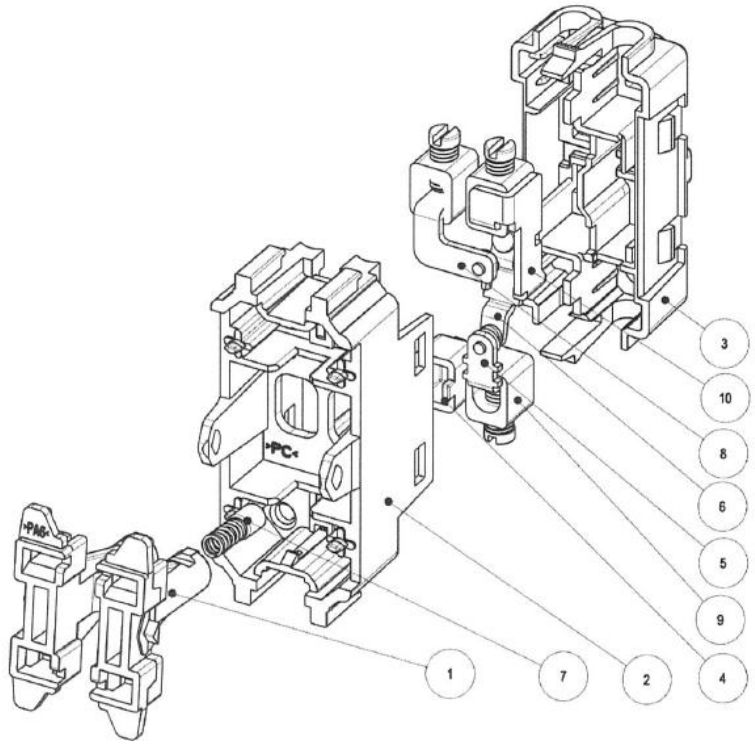
Switches

Single pole switches (for example 1G1W – Push buttom) 10 Amps and 20 Amps



1 – Base	PA
2 - Terminal	Brass
3 – Support Contact	Brass for 10 Amps and copper for 20 Amps
4 – Mobile contact	Brass for 10 Amps and copper for 20 Amps
5 – Fixed Contact	Brass for 10 Amps and copper for 20 Amps
6 – Terminal	Brass
7 - Cover support	PC
8 – Python + spring	PA + Steel
9 – Knob (Rocker)	PA

Two way switches (for example 1G2W) 10 Amps and 20 Amps



1 – Knob (Rocker)	PA
2 - Cover support	PC
3 – Base	PA
4 – Cap	PA
5 – Fixed Contact	Brass for 10 Amps and copper for 20 Amps
6 – Mobile contact	Brass for 10 Amps and copper for 20 Amps
7 – Python + Spring	PA + Steel
8 - Two way switch contact	Brass for 10 Amps and copper for 20 Amps
9 – Terminal	Brass
10– Support Contact	Brass for 10 Amps and copper for 20 Amps

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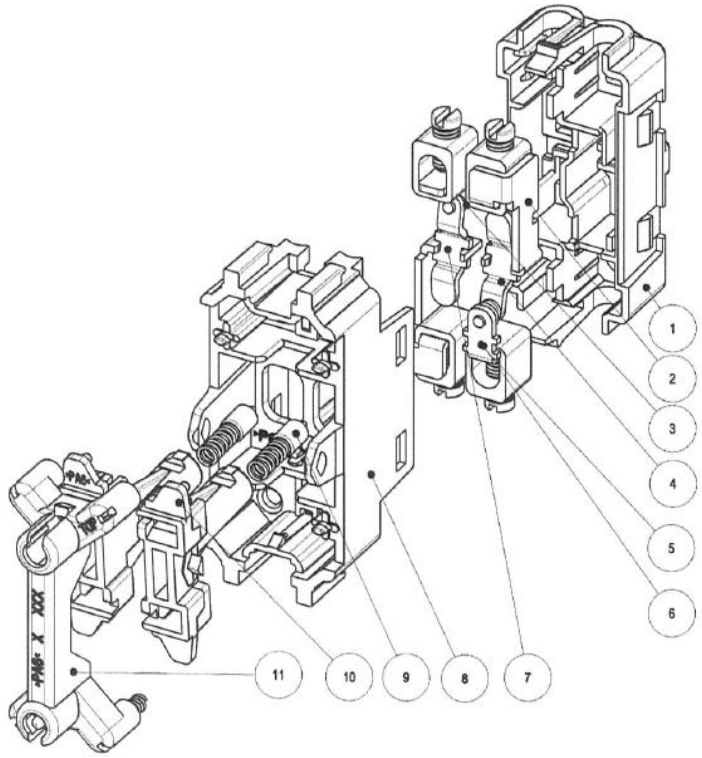
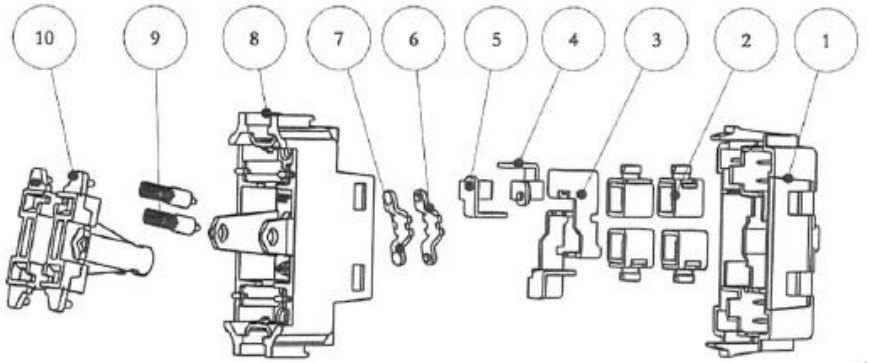
Double pole Switches 10 Amps and 20 Amps



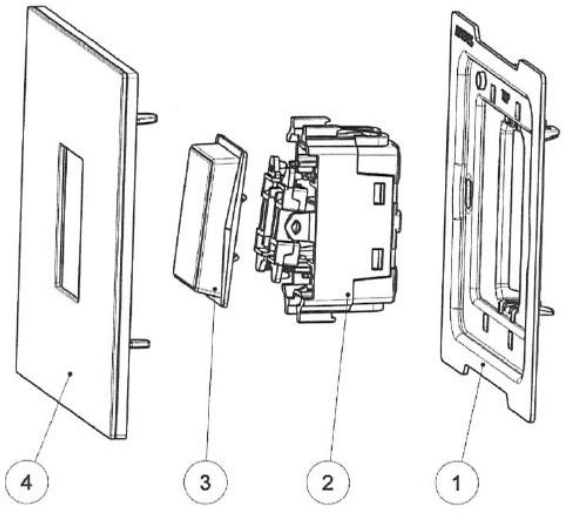
1 – Base	PA
2 – Support Contact	Brass for 10 Amps and copper for 20 Amps
3 – Terminal	Brass
4 – Mobile contact	Brass for 10 Amps and copper for 20 Amps
5 – Fixed Contact	Brass for 10 Amps and copper for 20 Amps
6 – Screw	Iron
7 – Mobile contact	Brass for 10 Amps and copper for 20 Amps
8 – Cover support	PC
9 – Python+ spring	PA + Steel
10 – Knob (Rocker)	PA
11 – LED	PA and electronic components

Intermediate switches 10 Amps



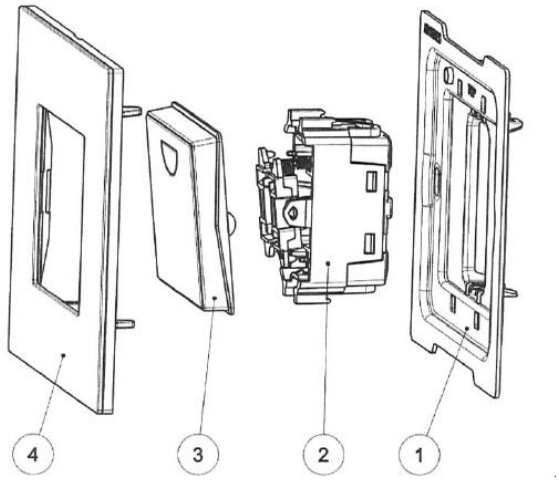
1 – Base	PA
2 – Terminal + Screw	Brass + Iron
3 – Support Contact	Brass
4 – Intermediate contact 1	Brass
5 – Intermediate contact 2	Brass
6 – Mobile contact	Brass
7 – Mobile contact	Brass
8 – Cover support	PC
9 – Python+ spring	PA + Steel
10 – Knob (Rocker)	PA

1 module Switches 10 Amps and 20 Amps



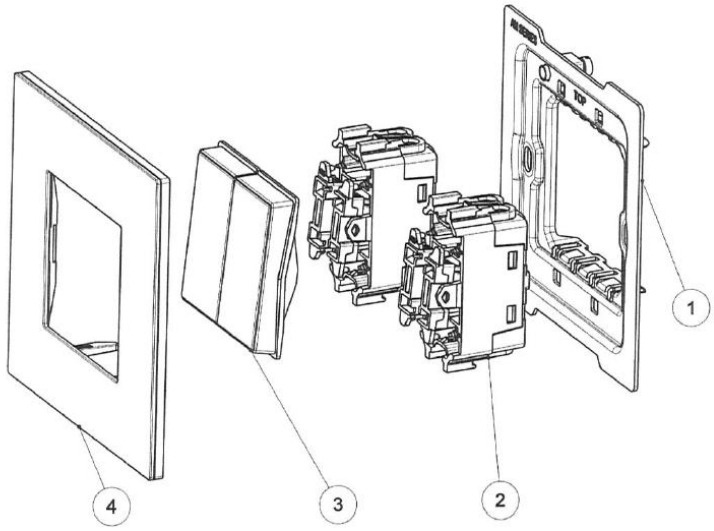
1 - Metal grid	Iron
2 – Switch	(described above)
3 – Rocker	ABS chrome + Stainless Steel
4 – Frame	PC + Stainless Steel

2 modules Switches 10 Amps and 20 Amps



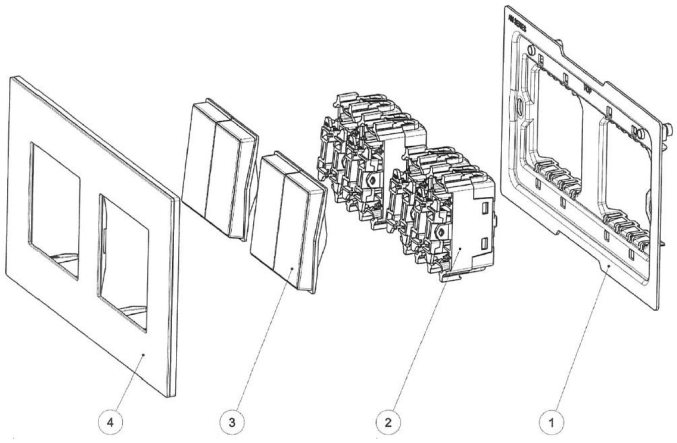
1 - Metal grid	Iron
2 – Switch	(described above)
3 – Rocker	ABS chrome + Stainless Steel
4 – Frame	PC + Stainless Steel

2G2W Switches 10 Amps and 20 Amps



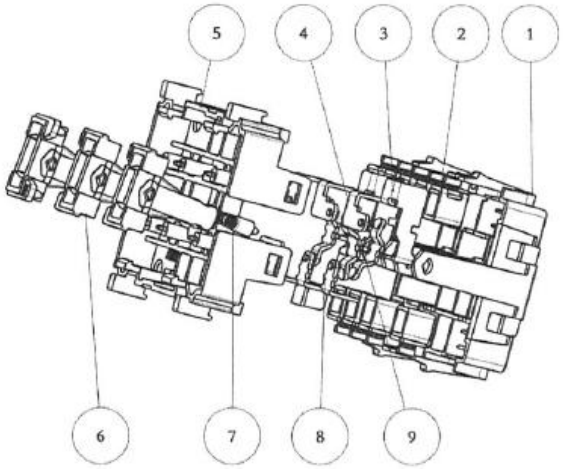
1 - Metal grid	Iron
2 – Switch	(described above)
3 – Rocker	ABS chrome + Stainless Steel
4 – Frame	PC + Stainless Steel

4G2W switches 10 Amps and 20 Amps



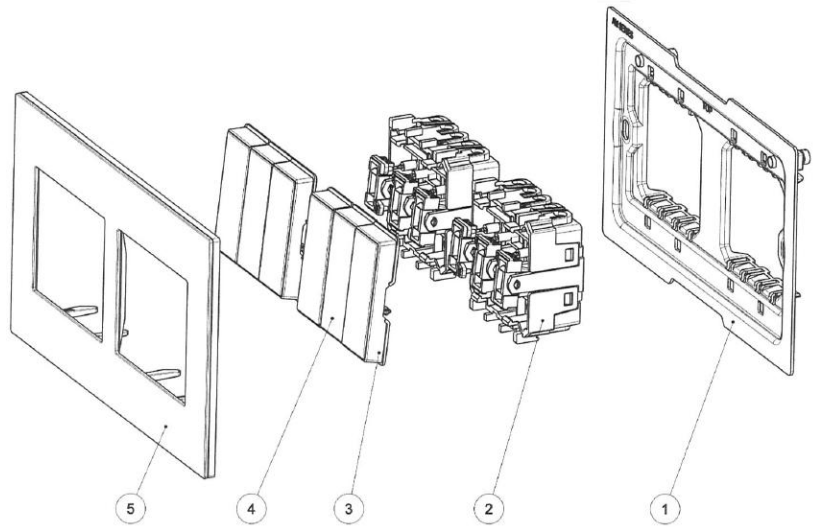
1 - Metal grid	Iron
2 – Switch	(described above)
3 – Rocker	ABS chrome + Stainless Steel
4 – Frame	PC + Stainless Steel

3G2W 1 Module 10Amps and 16 Amps



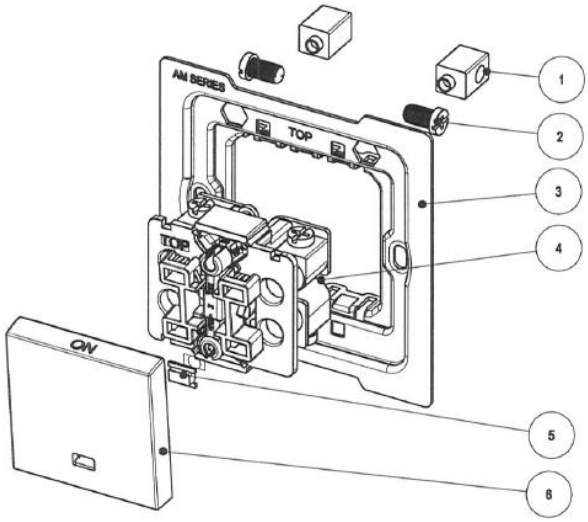
1 – Base	PA
2 – Terminal + Screw	Brass + Iron
3 – Support Contact	Brass
4 – Fixed Contact	Brass
5 – Cover support	PC
6 – Knob (Rocker)	PA
7 – Python+ spring	PA + Steel
8 – Two way switch contact	Brass
9 – Mobile contact	Brass

6G2W switches 10Amps and 16 Amps



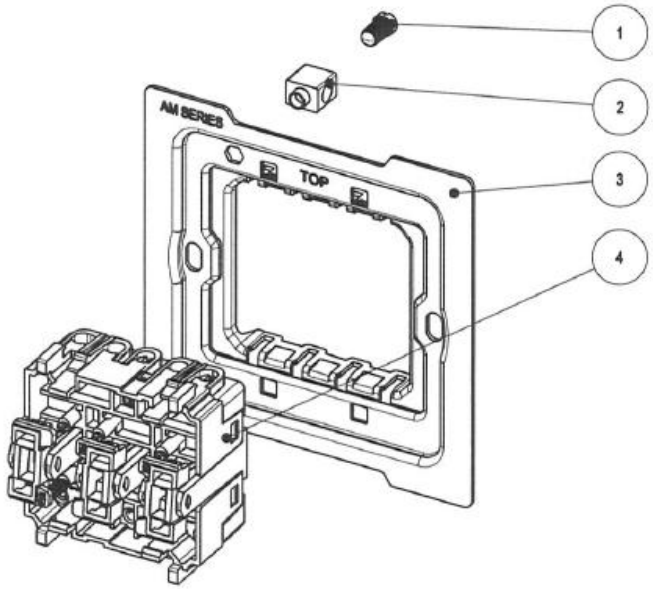
1 - Metal grid	Iron
2 – Switch	(described above)
3 – Plastic Rocker	ABS chrome
4 – Metal Rocker	Stainless Steel
4 – Frame	PC + Stainless Steel

45A Double pole switch



1 – Terminals for earthing	Brass
2 – Screw for terminals	Iron
3 – Metal grid	Iron
4 – Switch	(described above)
5 – Lens for light of LED	PC
6 – Rocker	PC

3 pole fan isolator



1 – Screw for terminal	Iron
2 – Terminals for earthing	Brass
3 – Metal grid	Iron
4 – Switch	(described above)

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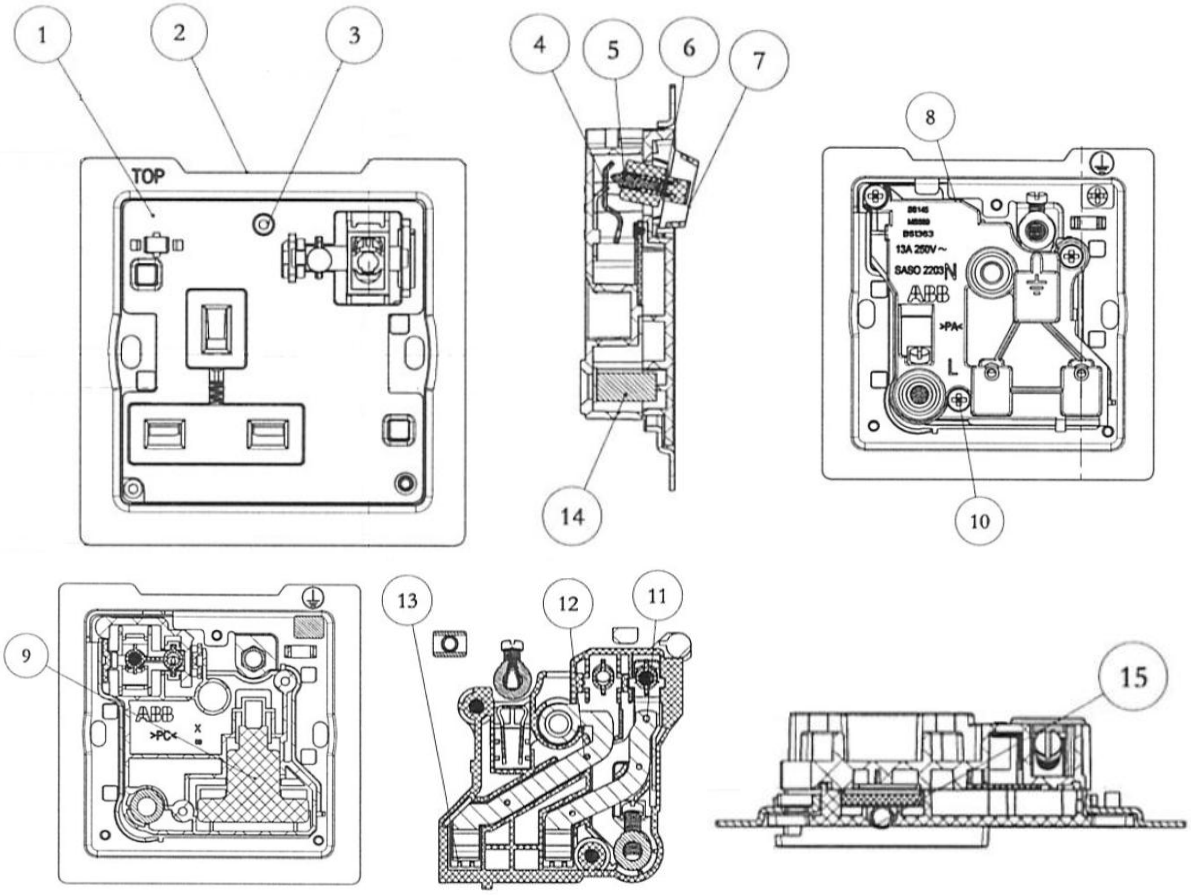
Sockets outlets

1G single pole switched, and double pole switched 13Amps



1 – Cover	PC
2 – Metal grid	Iron
3 – Rivets	Brass
4 - Mobile contact	Brass
5 – Python	PA
6 - Spring	Steel
7 - Knob (Rocker)	PA
8 – Base	PA
9 – Shutter (Blind)	PA
10 – Screw	Iron
11 – N contact1	Brass
12 – L contact1	Brass
13 – L contact2	Brass
14 – Terminal for L and N	Brass
15 – Spring for Shutter (Blind)	Steel

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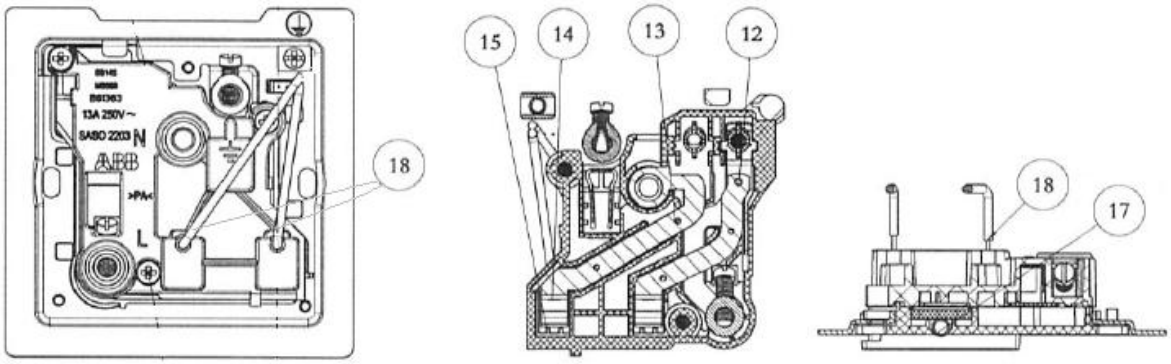
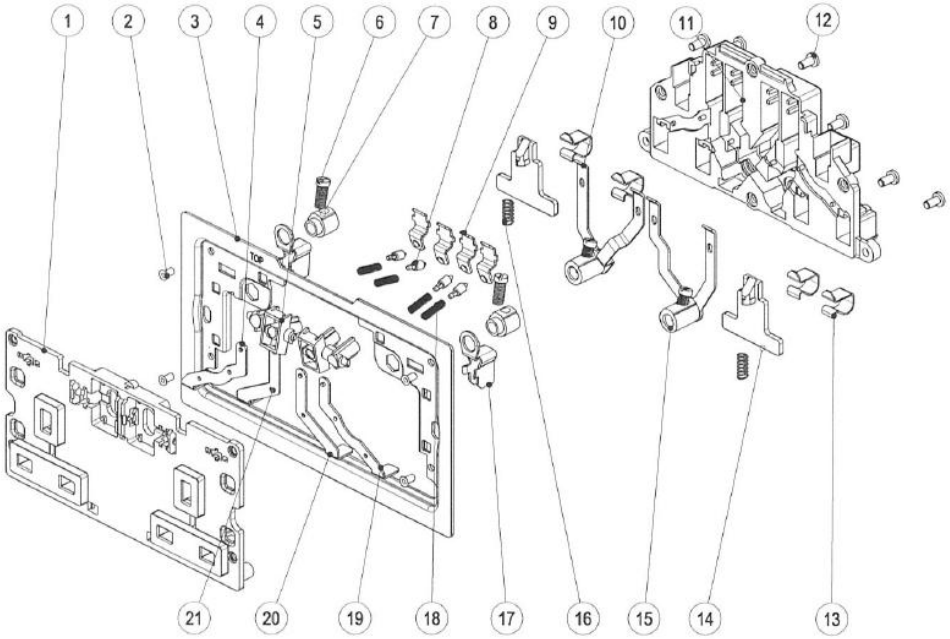
1G single pole switched with LED 13Amps, and double pole switched with LED 13Amps



From number 1 to number 14 are the same that 1G single pole switched, and double pole switched 13Amps.

15 – Spring for connect LED	Steel
17 – Spring for Blind	Steel
18 – Wiring for LED	Copper

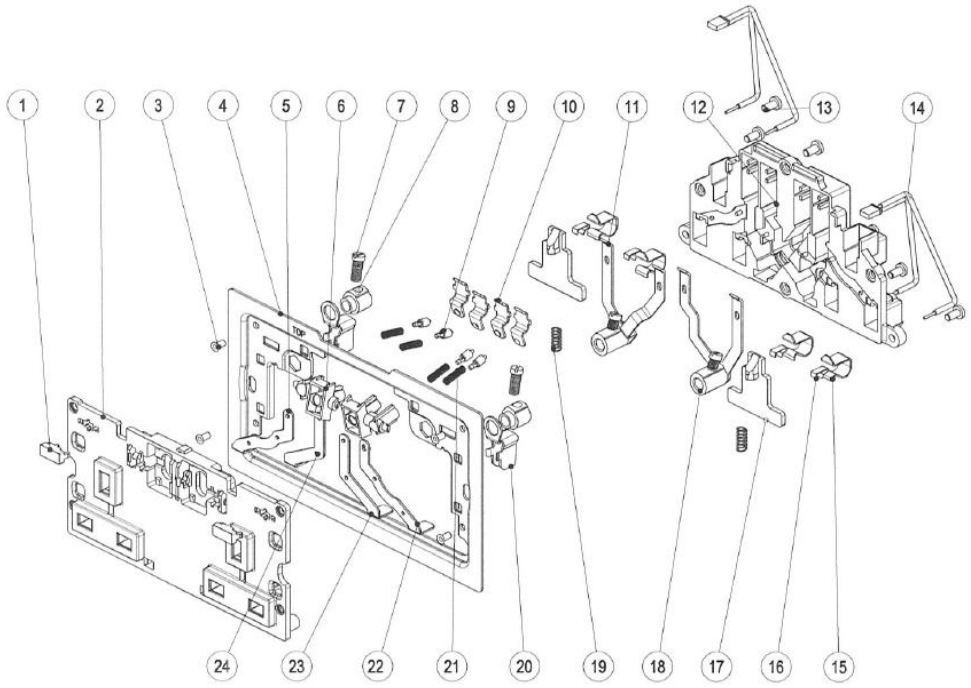
2G double pole switched 13Amps



1 – Cover	PC
2 – Rivets	Brass
3 – Metal grid	Iron
4 – L contact	Brass
5 - Knob (Rocker)	PA
6 – Screw	Iron
7 – Terminal	Brass

8 - Python	PA
9 - Mobile contact	Brass
10 – Terminal and contacts for socket 1	Brass
11 – Base	PA
12 – Rivets	Brass
13 - Contacts	Brass
14 – Shutter (Blind)	PA
15 - Terminal and contacts for socket 2	Brass
16 – Spring for Shutter (Blind)	Steel
17 – Contact for earth (security)	Brass
18 – Metal grid	Iron
19 – Contact for switch 2	Brass
20 - Contact for switch 2	Brass
21 - Contact for switch 1	Brass

2G double pole switched with LEDs 13Amps



It is the same that 2G double pole switched 13Amps, but with more components

1 – Display for LED	PC
14 – LED	PC and copper wire
16 – Spring for LED	Steel

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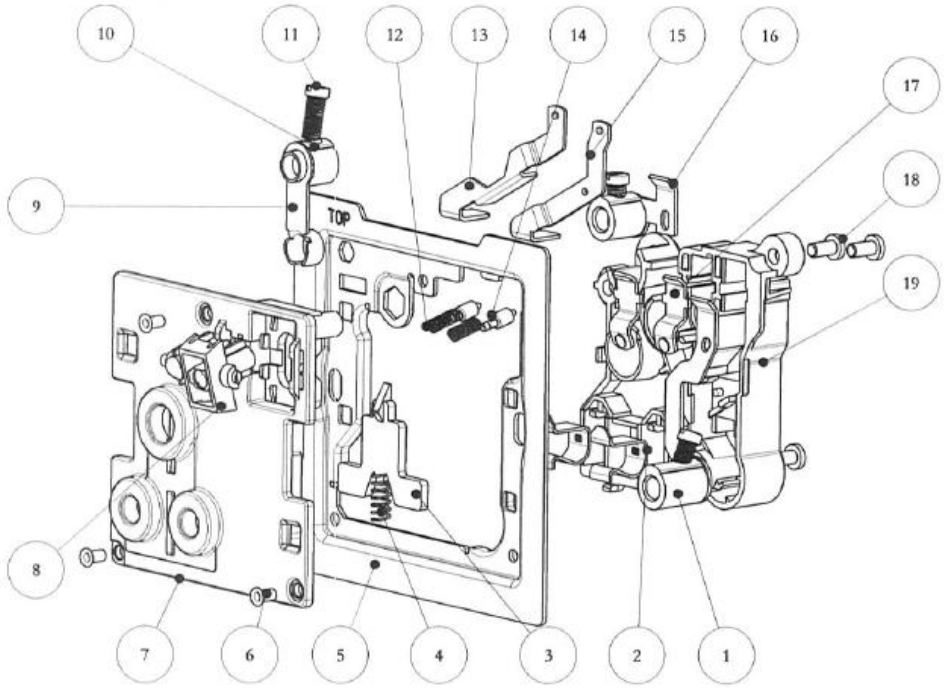
1G double pole switched 5Amp



1 – Terminal	Brass
2 – Contact	Brass
3 – Shutter (blind)	PA
4 – Spring for Shutter	Steel
5 – Metal grid	Iron
6 - Rivets	Brass
7 – Cover	PC
8 - Knob (Rocker)	PA
9 – Line contact	Brass
10 – Terminal	Brass
11 – Screw	Iron
12 – Spring	Steel
13 – Switch contact	Brass
14 – Python	PA
15 – Switch contact	Brass
16 – Support contact	Brass
17 – Mobile contact	Brass
18 – Rivets	Brass
19 – Base	PA

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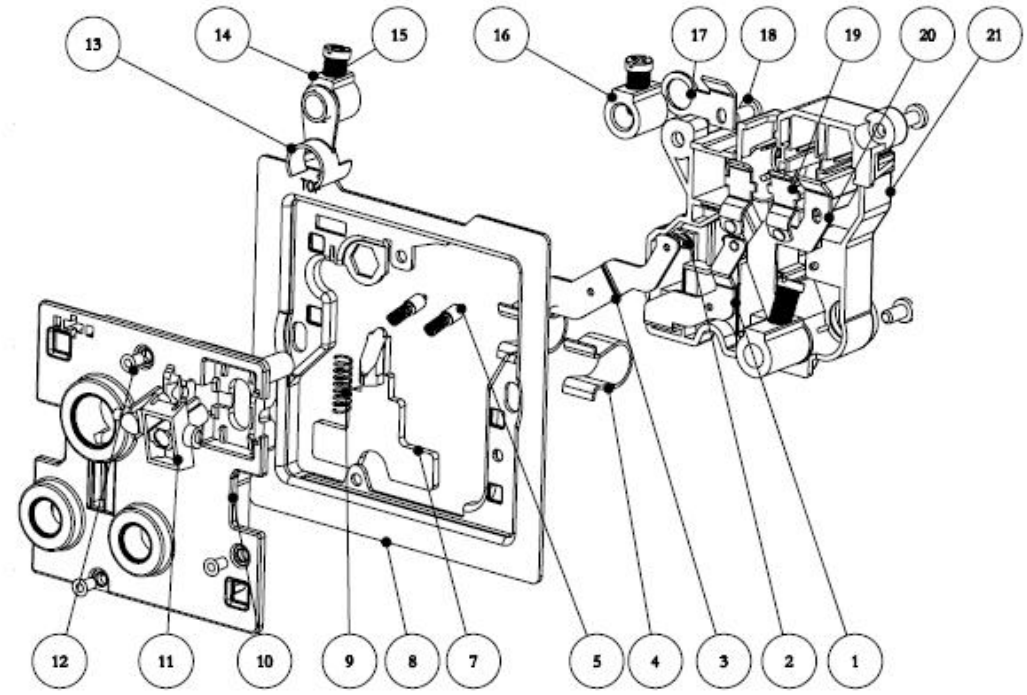
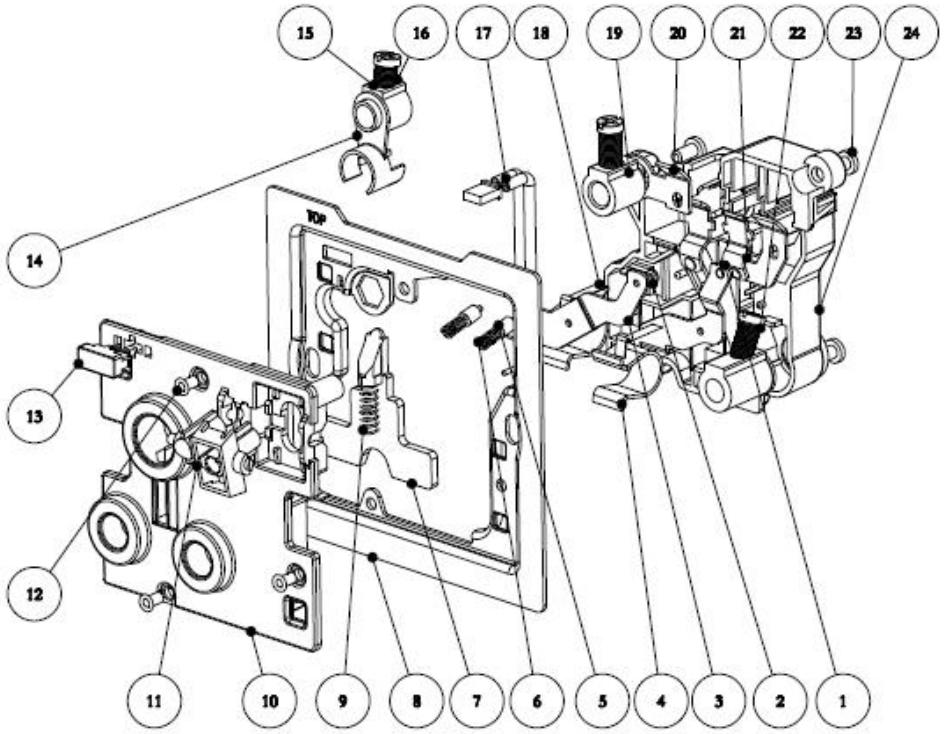
1G double pole switched 15Amp



1 – Support contact	Brass
2 - Line contact	Brass
3 – Switch contact	Brass
4 – Contact for pin	Brass
5 – Python	PA
7 – Shutter (blind)	PA
8 – Metal grid	Iron
9 – Spring for shutter	Steel
10 – Cover	PC
11 - Knob (Rocker)	PA
12 – Rivets	Brass
13 – Earth contact	Brass
14 – Terminal	Brass
15 – Screw	Iron
16 – Line terminal	Brass
17 – Support contact	Brass
18 – Rivets	Brass
19 – Mobile contact	Brass
20 – Support contact	Brass
21 – Base	PA

1G double pole switched 15Amp with LED

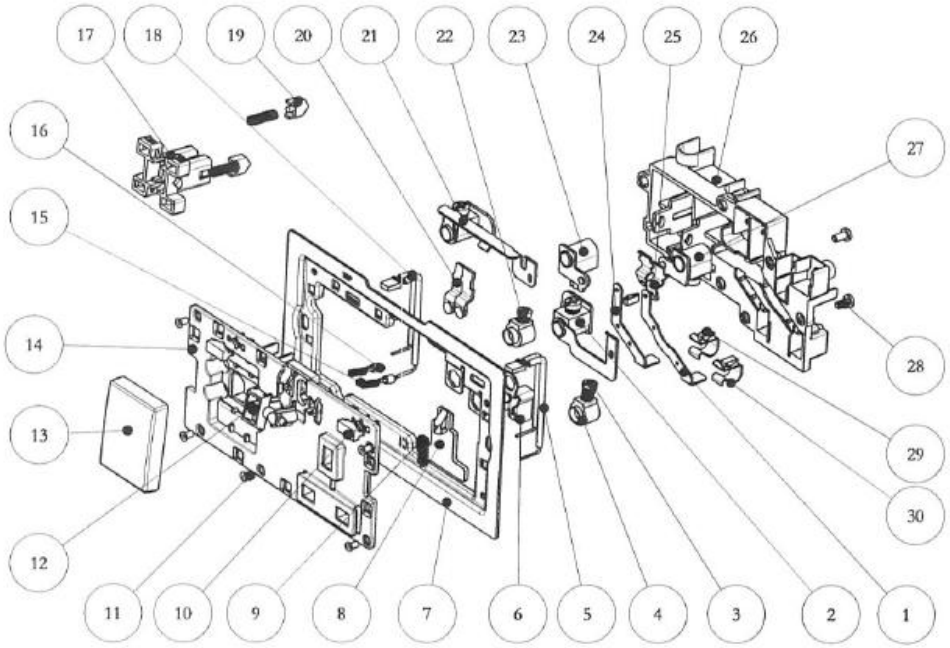


It is the same that 1G double pole switched 15Amp, but with more components

4 – Spring for LED	Steel
13 – Display for LED	PC
17 – LED	PC and copper wire

Various

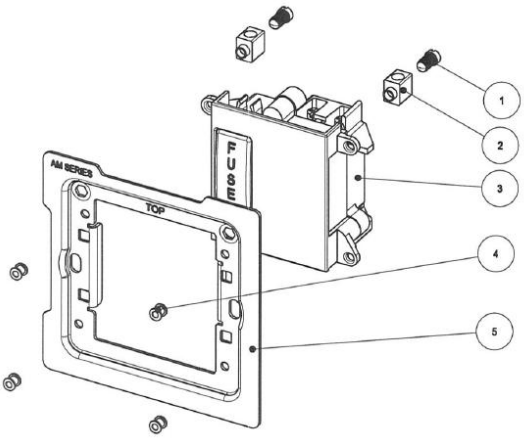
Cooker control unit



1 – 24 – Socket Outlet switch contact	Brass
2 – Terminal	Brass
3 – 22 – Screw	Iron
4 – Terminal	Brass
5 – 18 - LEDs	PC and copper wire
6 - Earth contact	Bass
7 – Metal grid	Iron
8 – Shutter (Blind)	PA
9 – spring for shutter	Steel
10 – display for LED	PC
11 – 28 - Rivets	Brass
12 - Knob (Rocker)	PA
13 – Rocker	PC
14 – Cover	PC
15 – Spring	Steel
16 – Python	PA
17 - Knob (Rocker)	PA
19 - Python	PA
20 – 25 - Mobile contact	Brass
21 – Double support switch contact	Brass
22 – Screw	Iron
23 – Terminal and fixed contact	Brass
24 – Switched contact	Brass
26 - Base	PA

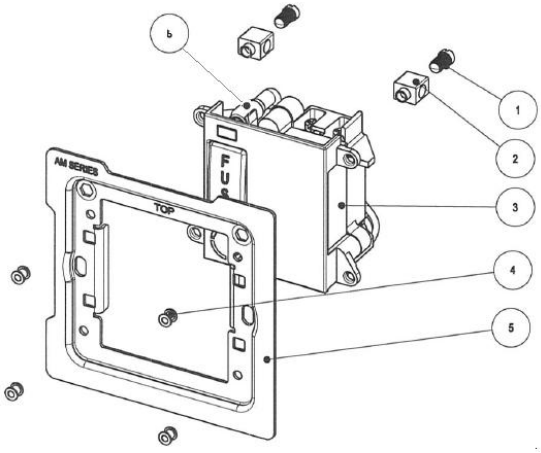
27 – Terminal and support contact	Brass
29 – Spring for LED connection	Steel
30 – Contact for pin	Brass

13Amp SPUR unswitched



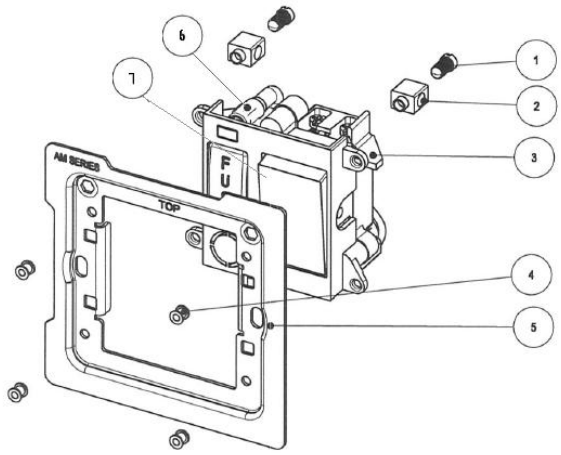
1 – Screw	Iron
2 – Terminals	Brass
3 – Device	PC + Brass
4 – Rivets	Brass
5 – Metal grid	Iron

13Amp SPUR unswitched with LED



1 – Screw	Iron
2 – Terminals	Brass
3 – Device	PC + Brass
4 – Rivets	Brass
5 – Metal grid	Iron
6 – LED	PC + Copper wire

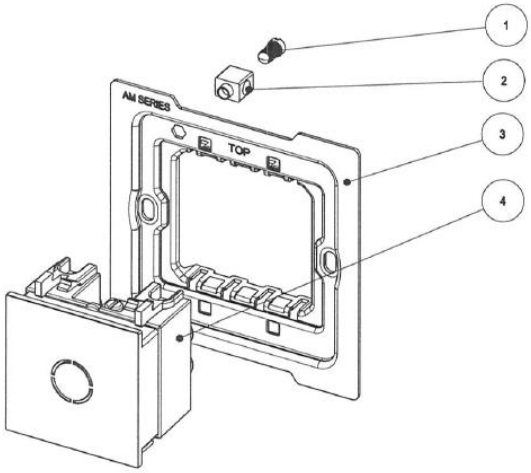
13Amp SPUR switched with LED



It is the same that 13Amp SPUR unswitched with LED, but with more components

7 – Switch	PC + Brass + Iron

20 Amp Flex outlet



1 – Screw	Iron
2 – Terminal	Brass
3 – Metal grid	Iron
4 – Device	PC + Brass + Iron

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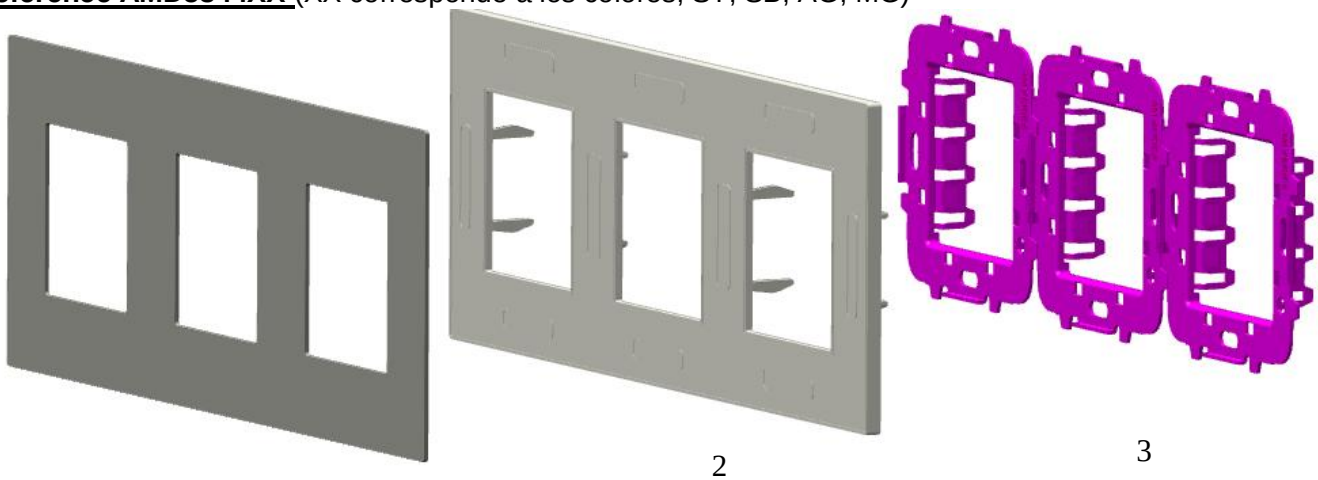
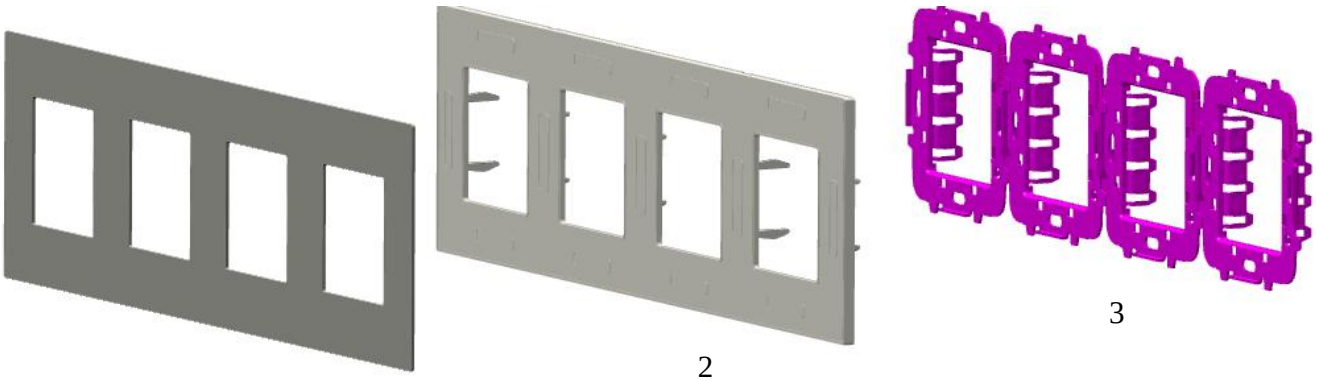
Reference AMD5344XX (XX corresponde a los colores, ST, SB, AG, MG)



1 2 3

1	Frame 3 V	Stainless Steel
2	Frame support 3 V	PC
3	Metal grid 3 V	Iron

Reference AMD5444XX (XX corresponde a los colores, ST, SB, AG, MG)



1 2 3

1	Frame 4 V	Stainless Steel
2	Frame support 4 V	PC
3	Metal grid 4 V	Iron

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Note: The presentation of these texts wrath according to the medium used (web, catalogs, instructions) so it does not always have this format.

Cecilia de Acha

Development Responsible

16/03/2016