Operating instructions

Hotplates 11/12/13/15/18/19.X

90.60122.196-002-02-A

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1 About these operating instructions

1.1 Validity

These operating instructions are for the following material number ranges of hotplates:

- 11.xxxxx.xxx
- 12.xxxxx.xxx
- 13.xxxxx.xxx
- 15.xxxxx.xxx
- 18.xxxxx.xxx
- 19.xxxxx.xxx

1.2 Handling of these operating instructions

These operating instructions are part of the product and describe the intended use of the product.

- ▶ Read these operating instructions, especially the safety instructions, carefully before use.
- ▶ Observe all other applicable documents.
- ▶ Keep these operating instructions during the product lifetime.
- ▶ Make sure that these operating instructions are available completely and legibly at all times.
- ▶ Pass these operating instructions to each subsequent owner or user of the product.

1.3 Revisions

Date	Version	What is new?
17th September 2019	01	Initial version
2nd January 2020	02	Comments chapter 2. safety (p.7)
19th August 2020	03	Correction page reference chapter 2.3.12 (p.9), Orthography (p.7 + 12), Supplement of page reference (p.16), Supplement in chapter 4.2.5 plug-connection (p.17), Update of contact (p.23)

Tab. 1: Revisions

1.4 Other applicable documents

- Type drawing

1.5 Symbols and markings

Symbols	Meaning
✓	Requirement of an action
▶	One-step action
▷	Measure to avoid a hazard in a warning
1.	• Step within a multi-step action list • Keep order.
➥	Final result of an action
	Tip for easier work
 **DANGER!**	Hazardous situation that will lead to death or serious injuries, if the safety measures are not followed.
 **WARNING!**	Hazardous situation that can lead to death or serious injuries, if the safety measures are not followed.
 **CAUTION!**	Hazardous situation that can lead to minor injuries, if the safety measures are not followed.
NOTICE!	Hazardous situation that can lead to property damage if the safety measures are not followed.

Tab. 2: Symbols and markings

2 Safety

2.1 Intended use

EGO Hotplates properly assembled into the final appliance are intended for heating food on cookers or hobs in domestic and commercial kitchen areas in fixed buildings. Any other use is not allowed by default and needs written consent of E.G.O.. EGO Hotplates are intended for supervised operation only.

2.2 Staff qualification

These operating instructions are intended for following staff/staff groups:

Staff	Required qualification
Electrical and mechanical skilled staff (research & development, product engineering, quality) of the kitchen appliances manufacturer	• Has detailed experience in design of electric kitchen appliances • Has detailed knowledge in valid norms and safety standards • Has detailed knowledge in using relevant tools and equipment for the production of electrical appliances
Qualified electrician	• Knows the relevant standards and regulations for electrical installations. • Has experience in using the relevant tools and equipment for electrical installations. • Has knowledge of cooking appliances. • Has received training from the kitchen appliance manufacturer.

Tab. 3: Staff qualification

2.3 Residual risks

2.3.1 Installation with applied voltage

If there is voltage applied on the hotplate by installation, electric shock hazard consists within the installation.

- ▶ Hotplate has to be installed or replaced by qualified staff only.
- ▶ Power supply of the cooking appliance has to be completely switched off before all installation or replacement work at a hotplate.

2.3.2 Insufficient grounding

People could suffer an electric shock by having insufficient grounding.

- ▶ Hotplate has to be connected correctly and permanently with ground potential. Pay attention to the regional regulations.

2.3.3 Wrong connection

Insufficient electric contacts could lead to an excessive heating. This can cause fires.
Insufficient electric contacts have among others the following causes:

- Mixing up the insertion position of the connection wire.
- Unsuitable receptacles or wire material

A wrong connection of terminals leads to incorrect grading of the heating power.

- ▶ Pay attention to the regional regulations.
- ▶ Hotplate has to be connected according to these operating instructions and type drawing.
- ▶ All hints of these operating instructions about cables, receptacles and wire end ferrules have to be considered.

2.3.4 Incorrect cable routing

Improper cable routings, e.g. as directly under the hot hotplate, could lead to a damage of the cable insulation.
In addition, there are risks at a tiltable hotplate due to the possibility of movement, that too high tensile forces appear on the cable or that the cable gets damaged by sharp edges.
These could lead to an electric shock hazard by having open wires.

- ▶ Never route cables directly under the hotplate.
- ▶ By using a tiltable hotplate:
  - – Never route the connecting cable directly over sharp edges.
  - – Insert the connecting cable with the cable jacket and with strain relief.

2.3.5 Damage of the electrical connection area

Incorrect transport may damage the electrical connection area. This could lead to an electric shock hazard.

- ▶ Never carry hotplates at the connections.

2.3.6 Tiltable hotplate: Incorrectly sealed connection box

If the connection box is not sealed correctly, electric shock hazard consists.

- ▶ Seal the connection box with the cover after electrical connection.

2.3.7 Hot surfaces

Hotplates heat up heavily during operation. After switching off, the heat is retained for some time. This leads to a risk of burning.

- ▶ Do not touch the hotplate, which is switched-on or was switched-on recently.

2.3.8 Humidity

Hotplates as single components, which are not built-in a cooking appliance, have protection class IP00.
The connection box of the tiltable hotplate is not waterproof.
In case of liquid entry, a hazard of electric shock consists. There is an increased risk if improper cleaning appears to the tiltable hotplate.

- Ensure that hotplates cannot get in contact on the bottom with liquids. This appears particularly within the cleaning of the tiltable hotplate.
- Hotplates in the cooking appliance have to be protected from humidity and accessibility to the electric connections.

2.3.9 Use of the hotplate outside its intended use

Within using the hotplate outside the cooking area, there are hazards of burning and electric shocks. By doing a misuse (e.g. usage of the hotplate as room heating), a hazard of burning consists.

- Hotplate has to be used in the intended area.
- Never store objects on the hotplate itself.

2.3.10 Non-intended objects on the cooking surface

Non-intended objects on the hotplate could lead to a burning hazard.

- Never store objects on the hotplate.

2.3.11 Use of damaged hotplates

If hotplates are damaged (e.g. cracks or corrosion), it is possible that live parts get accessible. This leads to hazard of electric shock by touching.

- Do not use damaged hotplates.

2.3.12 Smoke appearance

During the first use of a brand new hotplate an obvious smoke appearance will be visible. Poisoning can be possible.

- Do the burn-in process of the hotplate as described in these operating instructions (see chapter 4.3.1., p.199).
- Make sure that elderly or ill persons, children, pregnant or nursing women shall stay out of the area during the burn-in process.
- Ensure a sufficient and continuous fresh air flow.
- Use an extractor hood during burn-in process.

2.3.13 Food or food residues directly on the hotplate

Coated hotplates are not intended for heating food directly on the hotplate surface. There is the hazard that material from the coating can be transferred to the food.

Non-coated hotplates have a hazard that unhealthy materials mix with food, if acidic food will be heated on the surface. This can occur by chemical reactions of the acidic food with cast iron body.

Due to insufficient cleaning, food residues can disintegrate or burning. The occurring steams lead to a damage of health. Furthermore, there is a hazard of burning.

- For the use of a coated hotplate: Never heat up food directly on the hotplate surface. Use suitable cookware for heating food.
- For the use of a non-coated hotplate: Never heat up acidic food directly on the hotplate surface.
- Remove overflowed liquids or food with a damp cloth (cleaning see chapter 5.1., p.20).

2.3.14 Sharp edges

Packaging material and hotplate parts like spill ring, connection box, mounting parts may have sharp edges. People can cut themselves into hands or fingers.

- Wear safety gloves during transport and installation.

2.3.15 Weight

A hotplate can have a heavy weight. During the handling of a hotplate, people can squeeze arms and hands. If a hotplate falls, people may injure their feet.
If a tiltable hotplate tilts back unrestrained, the electrical components may be damaged.

- Be careful while moving the hotplate.
- Carry big hotplates by two persons.
- For tiltable hotplate: To tilt back the hotplate, grab under the hotplate and carefully guide the hotplate down as far as possible with your hand.

2.4 Avoidance of property damage

2.4.1 Empty cooking and insufficient cookware

Using empty or insufficient cookware may overheat the cookware. This creates the risk of damage to property.

- Only use a hotplate with suitable cookware.
- Do not cook the cookware empty or cook with empty cookware.

3 Transport and storage

3.1 Transport

- Use suitable packaging to prevent damage to the product.
- Do not stack hotplate pallets.
- Have a transport temperature between -20 °C – +70 °C.

3.2 Storage

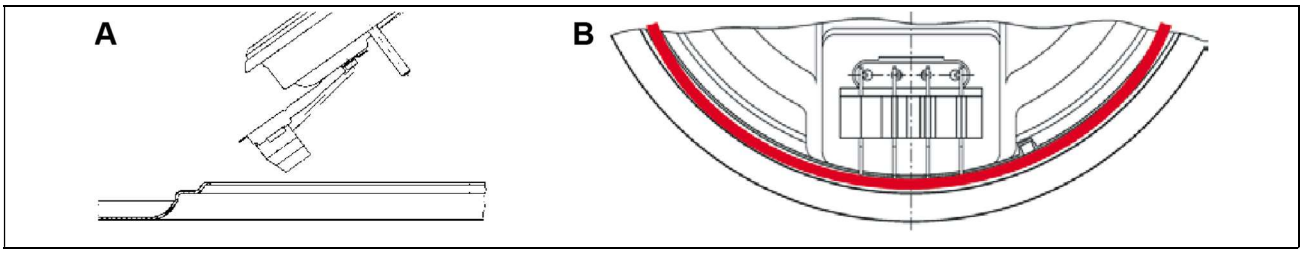
- Comply with the following storage conditions:
  - Have a storage temperature between 5 – 70 °C.
  - Store dry in a closed room (hygroscopic insulation material).
  - Have a protection against corrosion and pollution.
  - For block storage: Stack a maximum of two hotplates pallets on top of each other with the maximum of own weight.

4 Installation and commissioning

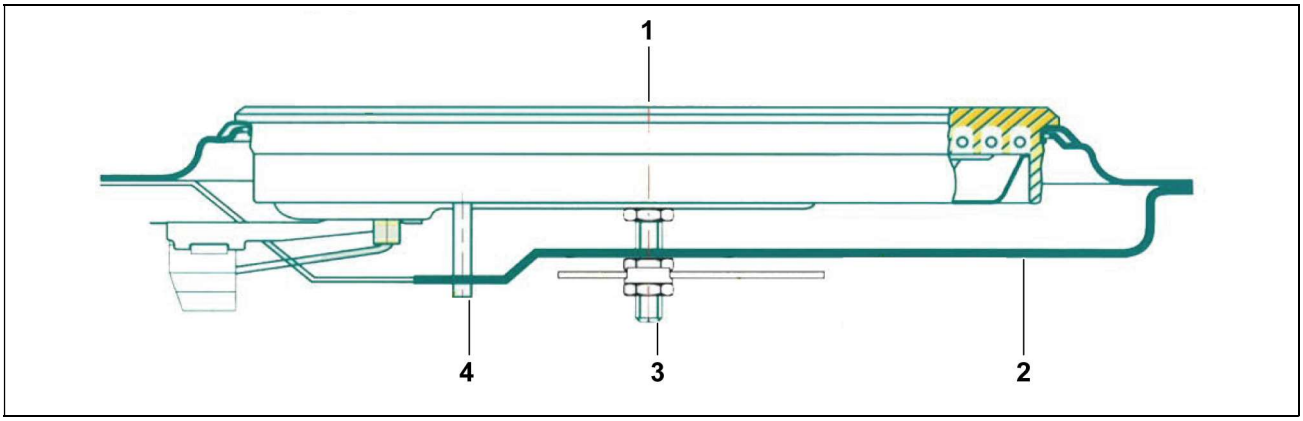
4.1 Assembly

4.1.1 Round hotplate with spill ring

1. If the hotplate is installed as a spare part for already installed hotplate: replace mounting material such as e.g. fixing bracket or cover sheet.



2. Insert the hotplate as follows:
   – For hotplates with screw connection (A): insert hotplate diagonally.
   – For hotplates with plug-in connection (B): Insert the hotplate straight into the mounting hole of the cooking appliance.



3. Assemble the hotplate (1) with the middle bolt (3) over fixing bracket or cover sheet (2) by using a nut to the cooking appliance (fixing bracket and cover sheet are not included in the hotplate's scope of delivery; they can be ordered separately at E.G.O.).
   Position the hotplate that the anti-rotating bolt can fix the hotplate against twisting.

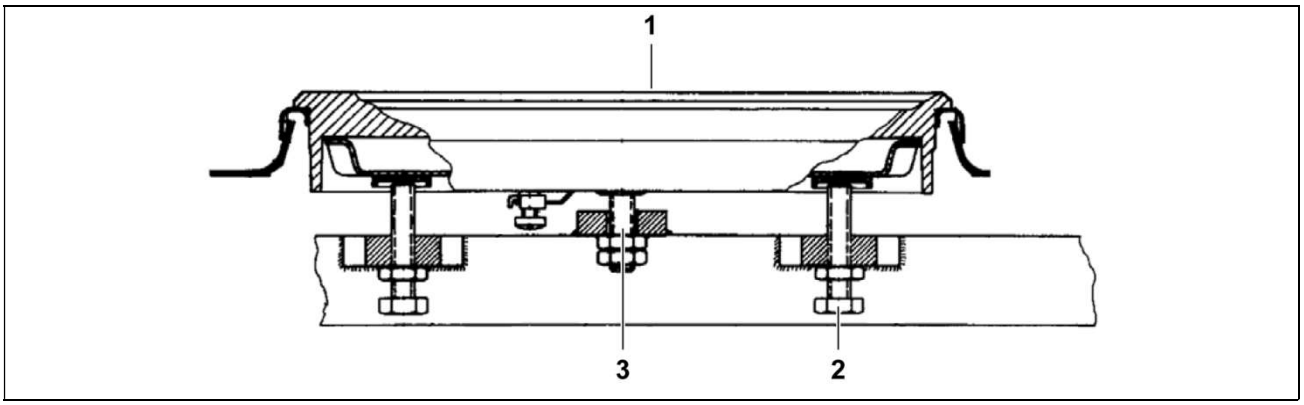
   NOTICE! Hotplate deformation and/or damage through too high tensile forces.

   Decrease of the energy efficiency
   ▷ Do not overtighten the nut.

4. Tighten the nut:
   – For use of fixing bracket: torque 0.7 Nm
   – For use of cover sheet: torque 0.4 Nm
5. Consider the protective earth over the middle bolt (see chapter 4.2.5., p.17).

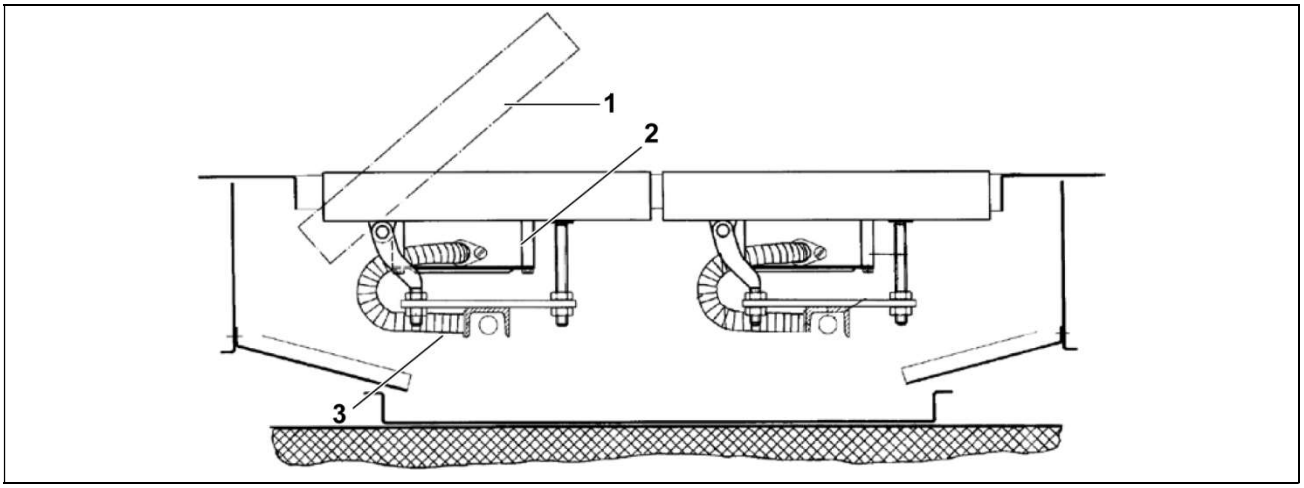
4.1.2 Rectangular hotplate

1. Insert the hotplate straight into the mounting hole of the cooking appliance.



2. Align the hotplate with support screws (2).
3. Assemble the hotplate (1) over the middle bolt (3) (support screws are not included in the hotplate delivery; torque for commercial hotplate: 1.5 Nm).

4.1.3 Tiltable hotplate



1. Assemble the hotplate (1) with suitable bearing and support screws.
2. Guide the cable (the metal-flex tube, bearing and support screws cannot be ordered at E.G.O). Consider the following aspects:
   – Carry out the cable entry to the connection box (2) and the cable routing (3) in such a way that the end user cannot touch any live parts.
   – Do not guide the cable over sharp edges.
   – Make sure that no moisture can enter.

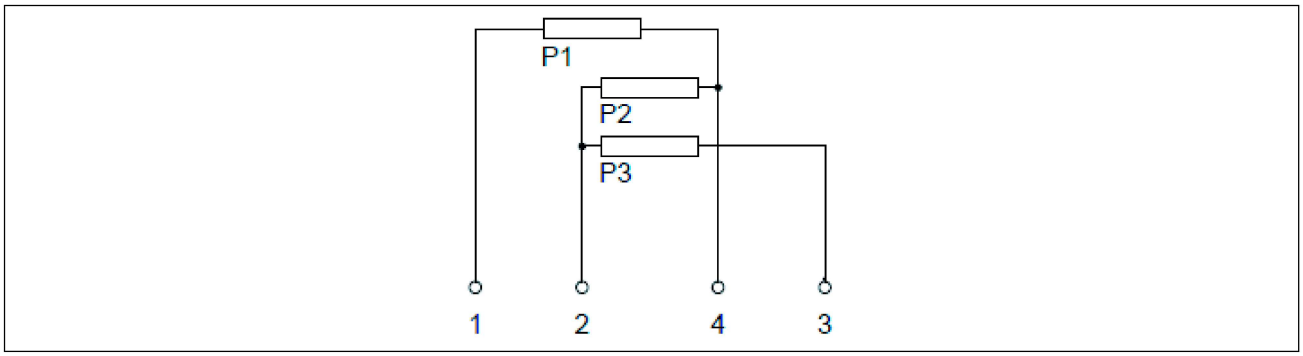
4.2 Electrical connection

- Observe the corresponding type drawing before connecting the hotplate.

4.2.1 Wiring of a 6-heat hotplate

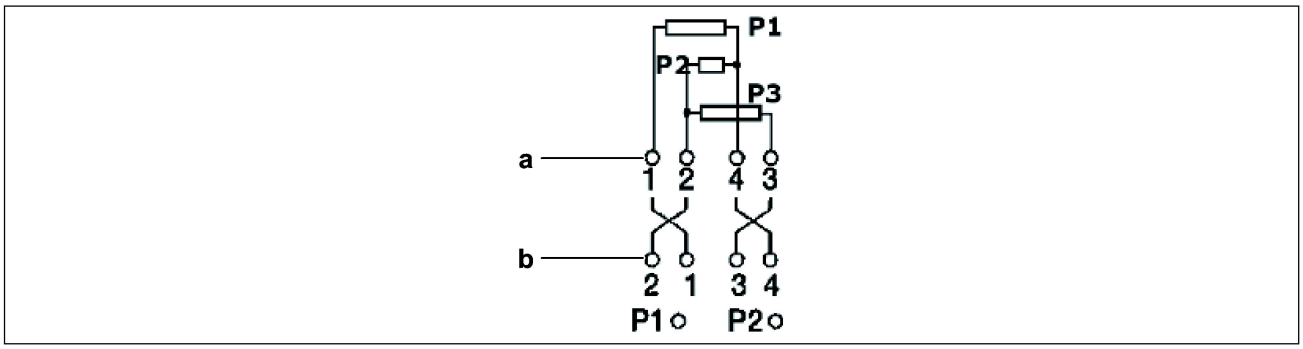
A hotplate with 6-heat levels is designed for a use with 7-position switch (off/0 + 6 heat levels). Alternatively, the hotplate can be controlled by an energy regulator.

The 6-heat hotplate has 3 heating conductors, which are wired as following illustrated:



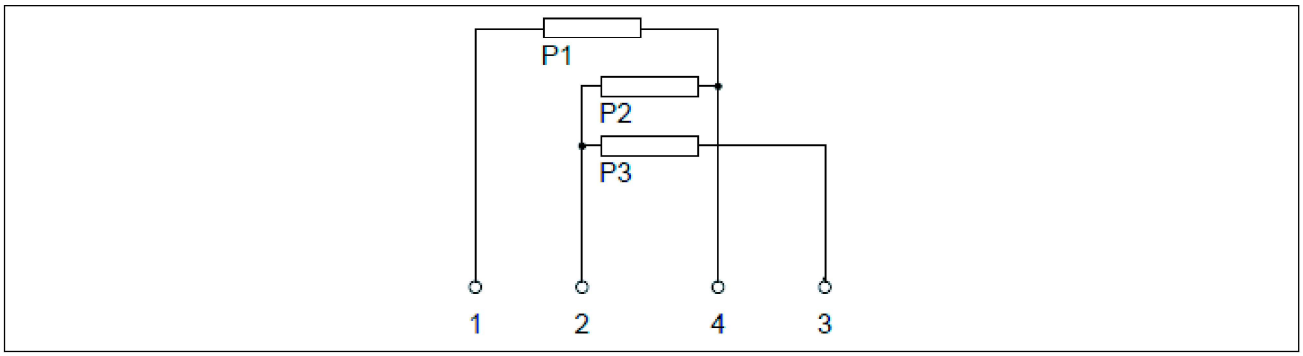
Connection of the hotplate to a 7-position switch

The different heat levels are each achieved with a parallel connection, series connection or switching off one or 2 of the 3 heating conductors. The power of the respective heat levels is illustrated on the type drawing.



- Interconnect (the illustrated connection numbers of the switch (b) are just valid for EGO switches) the connections of the hotplate (a) to the corresponding connections of the switch (b).

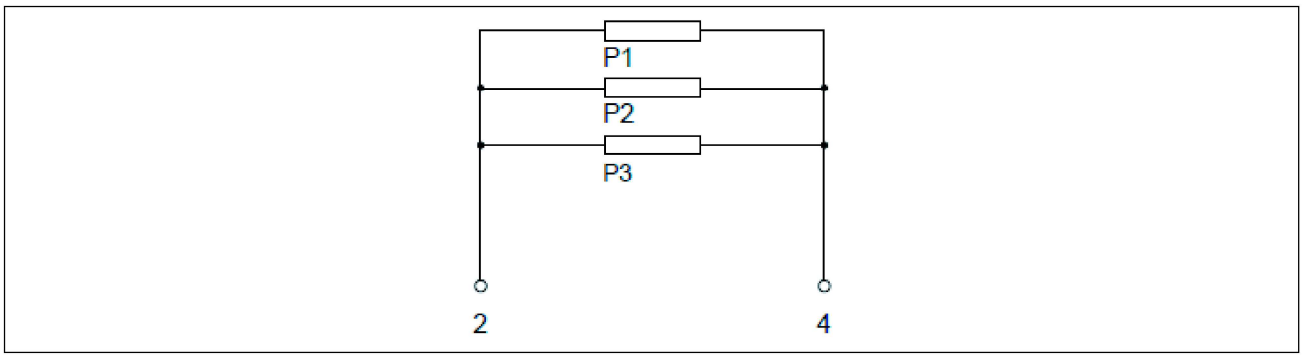
Connection of the hotplate to an energy regulator



1. Interconnect connections 1 and 2 such as connections 3 and 4.
   All heating conductors are wired parallel.
2. Connect connections 1/2 an 3/4 to the energy regulator.

4.2.2 Wiring of single-circuit hotplates

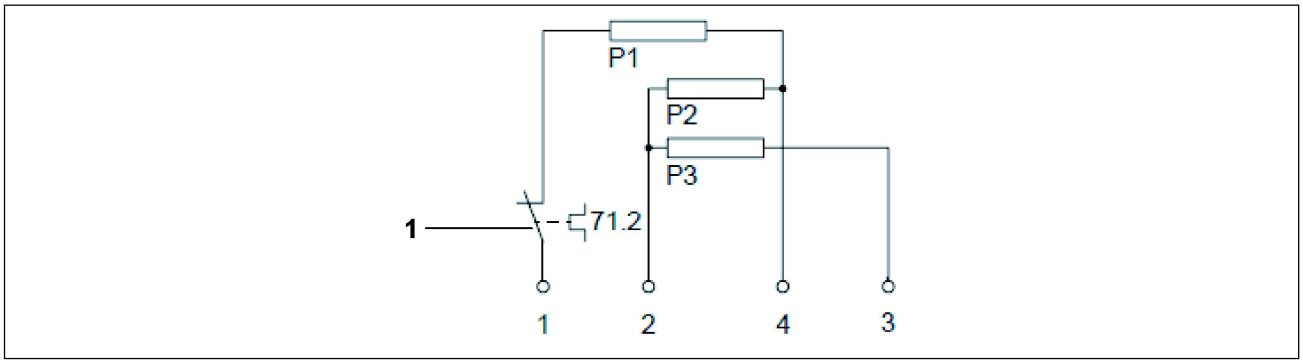
Single-circuit hotplates have three heating conductors and two connections at the connection terminal. To achieve the maximum power, the heating conductions are wired in parallel.



▶ Connect connections 2 and 4 to the energy regulator.

4.2.3 Wiring of high-speed hotplates

Single-circuit and 6-heat hotplates are available as high-speed hotplates with increased power. The standard version has a red dot in the middle of the hotplate's surface, which signals the end user the higher power.



To protect the hotplate from overheating (e.g. by using empty or bad cookware), the integrated protector (1) disconnects parts of the heating coil(s) when having overheat. As soon as the temperature of the hotplate is below the limit value, the protector allows full heating power again.

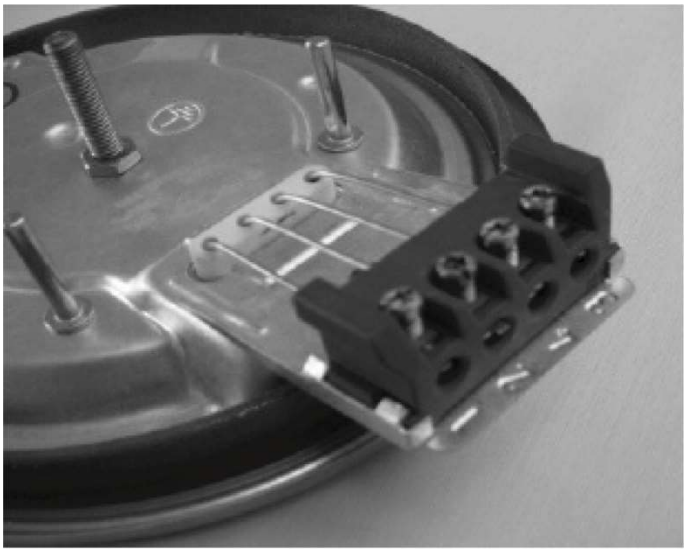
- Connect the connections to the switch/energy regulator (see wiring of 6-heat hotplates, p. **Error! Bookmark not defined.**), (see wiring of single-circuit hotplates, p. **Error! Bookmark not defined.**).

4.2.4 Connection types for domestic and commercial hotplates

- Only use conductive and insulating material, which is designed for the high temperatures of a cooking appliance with hotplates.
- Maintain sufficient air and creepage distance to conductive housing parts
- Consider the protective earth over the middle bolt at all connection types. The metal contact between spill ring and stove is **not** sufficient as grounding.

Screw connection (type 1)

A temperature up to 300° C can occur at the connection terminal during operation.
Position and insulation in the device are additional factors that contribute to the development of heat inside the cooking appliance.



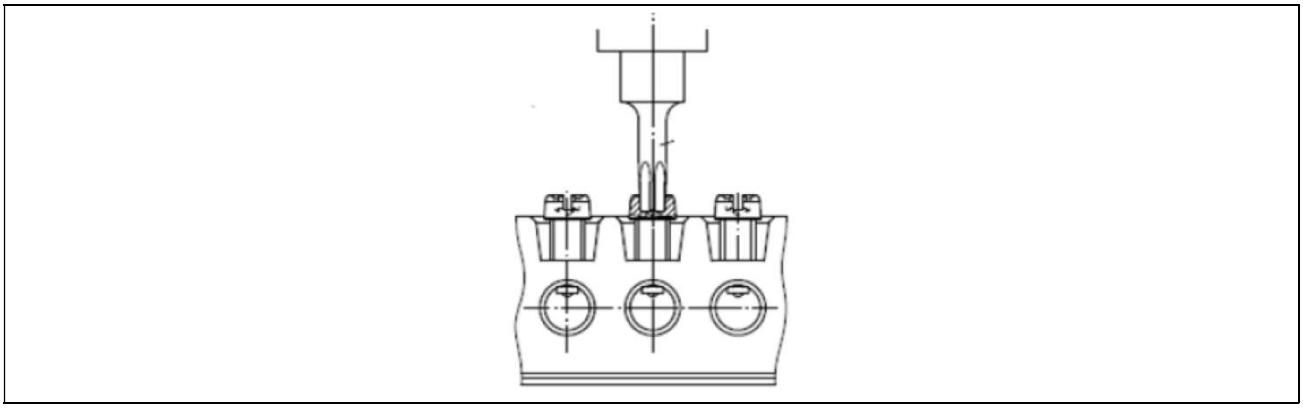
- Make sure that the temperature will not exceed 300 °C at connection area to protect the connection material and hotplate.
- Use suitable conductive and insulation material.
- When using stranded wires: only use with a temperature resistance of 300 °C.

NOTICE! Wrong mounting position of the wire!

Electrical connection area damage is possible through additional heat development.

▷ Insert cables underneath the wire of the hotplate.

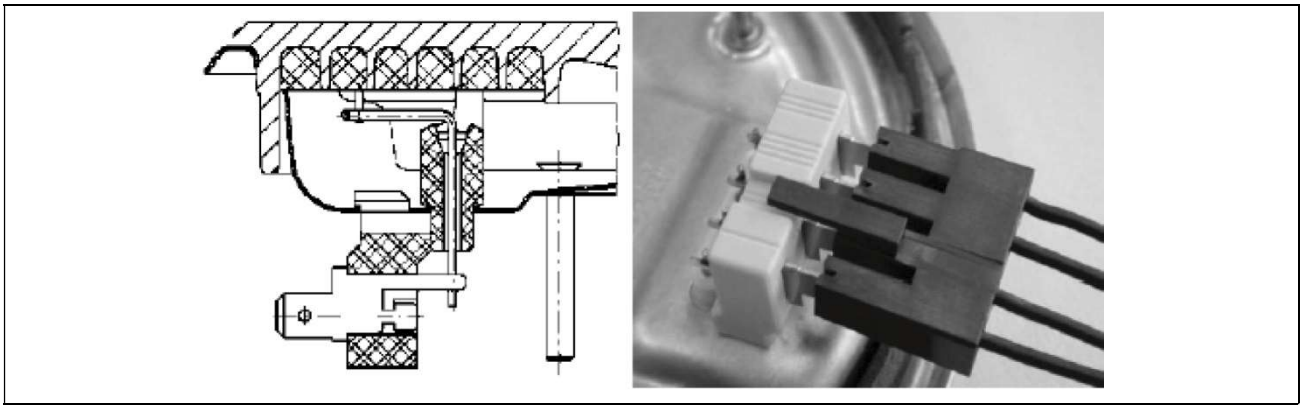
- Insert cables underneath the wire of the hotplate.



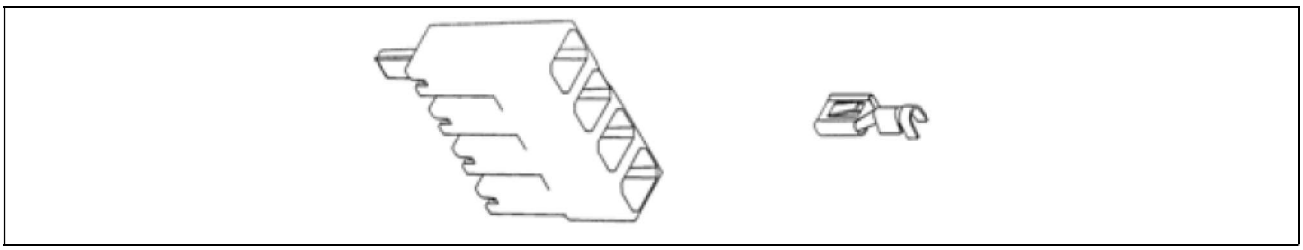
- Tighten the TX10-screw head of the Torx screws with a torque of 0.8-1.2 Nm.

4.2.5 Type of connection, especially for domestic hotplates

Plug-in connection



- Make sure that the temperature will not exceed 400 °C at contact parts to protect the connection material and hotplate.
- Use 6.3 x 0.8 receptacles for tabs of 1.4301 stainless steel.
- If using single wires: connect each wire with the connection terminal of the hotplate.
- Use suitable conductive and insulation material.



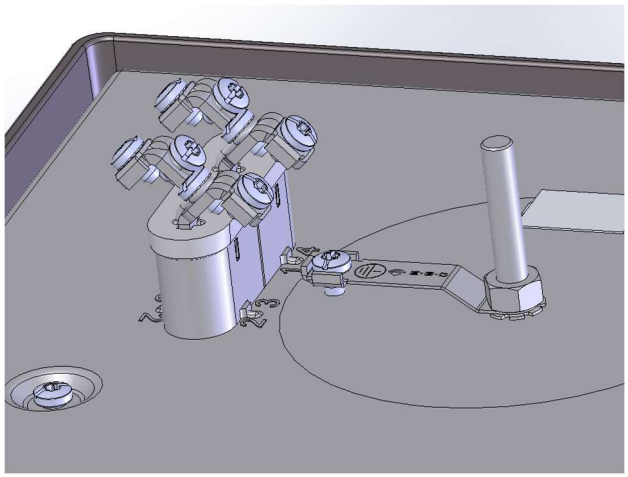
- When using group connectors:
  - Use only group connectors, which have material approved for temperatures in the specific application.
  - Use receptacles that require a low insertion force for easier work.

4.2.6 Type of connection, especially for commercial hotplates

- Use only conductive and insulating material, which is designed for the high temperatures of a cooking appliance with hotplates.
- Maintain sufficient air and creepage distance to conductive housing parts
- Consider the protective grounding over the grounding flap. The metal contact between spill ring and stove is **not** sufficient as grounding.

Screw connection (type 2)

A temperature up to 300° C can occur at the connection terminal during operation.
Position and insulation in the device are additional factors that contribute to the development of heat inside the cooking appliance.



- Ensure that the temperature will not exceed 300 °C at the connection area to protect connection material and hotplate.
- Use suitable conductive and insulation material.
- When using stranded wires: only use with a temperature resistance of 300 °C.
- Tighten the M5-screw with a torque of 2 – 2.5 Nm.

4.3 First use

Brand new EGO Hotplates are coated with a lacquer, which has to be burned-in before first use. This is also necessary, if a hotplate will be replaced in a service case.

4.3.1 Burn-in

For cooking appliances with several hotplates, the burn-in process must be operated in succession for each hotplate in the following manner. This can lead to heavy smoke appearance.

⚠ WARNING! Heavy smoke appearance!

Poisoning hazard

- ▷ Make sure that elderly or ill persons, children, pregnant or nursing women shall stay out of the area during the burn-in process.
- ▷ Ensure a sufficient and continuous fresh air flow.
- ▷ Use an extractor hood during burn-in process.

1. Ensure a sufficient and continuous fresh air flow within the complete burn-in process (open window).
2. If available, use a hood during burn-in process.
3. Make sure that there is no cookware on the hotplate.
4. For the control with switches:
   – Switch with 6-heat levels: level 4
   – Switch with 3-heat levels: maximum power
5. For the control with energy regulator: Energy regulator has to be set at least on 50 % value.
6. Heat up hotplate at least for 30 minutes.

➥ During the burn-in process an obvious smoke appearance will be visible. The smoke appearance will disappear after some time by its own. However, the burn-in process is not finished with the disappearance of the smoke.

4.3.2 Spill ring cleaning

If the spill ring discolours during burn-in:

1. Let the hotplate cool down.
2. Clean the spill ring with stainless steel polishing.

5 Cleaning and maintenance

5.1 Cleaning

After each use

1. Clean the hotplate with a damp cloth.
   If heavily soiled, use commercially available polishing or abrasives.
2. Remove residues from the hotplate.
3. Heat the hotplate briefly to dry.

Periodically

- ▶ Apply a thin film of vegetable oil or a special care product for hotplates.

5.2 Maintenance

EGO Hotplates cannot be repaired.

- ▶ A damaged hotplate has to be replaced by a completely new hotplate.

6 Disposal

- Do not dispose the hotplate within the household rubbish.
- Dispose according to local regulations.

7 Technical data

For further details please refer to our type drawing.

8 Contact

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