

The Bodo Hennig Electrical System

You have made the right decision choosing the Bodo Hennig Electrical System. The „surface mounted“ system (for 3.5 – 12 V) with its various modules is really flexible and ideal when installing the electrical system in your dolls house at a later date. The installation is made simply by using glue or by fitting pieces together.

Before installing the electrical system, please read enclosed instructions through carefully. Certain precautions need to be taken when using electrical devices, so please pay attention to the following points:

Safety Precautions

The electrical system should be installed by a competent adult.

Never connect the electrical system directly to local power supply (e.g. 110 volt or 220 volt)! **Dangerous! Always use a transformer!**

The electrical system should only be operated using an A.C.-Transformer with secondary-voltage between 3.5 and max. 12 volt depending on the voltage of the electrical appliance being used (e.g. light bulb)!




Never connect two power supply sources (e.g. two transformers) to the same circuit!

Never leave the electrical system switched on when not being supervised. Remove the transformer plug from the power supply first!




To avoid overloading, **never connect more than 10 power consuming devices** to the complete circuit!

System Components / Pièces du système

Electrical Modules / Modules électriques

-  Distributor Box / Multiprise
-  Socket / Prise femelle
-  Toggle Switch / Switch
Interrupteur / Interrupteur poussoir

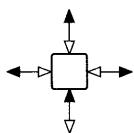
Connecting Elements / Eléments de liaison

-  Plug and Cable / Prise mâle et câble
-  Electric Channels / Canal électrique
-  Contact Pins / Mine conductrice

Basic Connection Possibilities of the Modules /

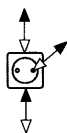
Possibilités de branchements de base des modules

Distributor Box / Multiprise



On 4 sides
4 x latéral

Socket / Prise femelle



On 2 sides - At front
2 x latéral - 1 x frontal

Switch / Interrupteur



On 2 sides
2 x latéral

Connection Possibilities of Two Modules /

Possibilités de branchement de 2 modules

A) By Plug and Cable



Advantages:

- Easiest long-distance connection
- Flexible and therefore easy to conceal connection
- Can be dismantled at any time

A) Par prise et câble

Avantages:

- Façon la plus simple pour une longue liaison
- Flexible et donc facilement dissimulable
- Peut être démonté à chaque instant

B) By Electrical Channel



Advantages:

- Rigid long-distance connection of two modules
- Wall and ceiling fixed installation (suitable for small children)
- Optically neat and straight connection

B) Par canal électrique

Avantages:

- Liaison rigide de 2 modules
- Installation pour cloisons et plafonds plus sûre pour les enfants
- Optique plus nette et liaison rectiligne

C) By Contact Pins



Advantages:

- Direct plug connection of two modules
- Creates central switching unit (e. g. separate socket strip or switch-socket combination)

C) Par mine conductrice

Avantages:

- Liaison directe de 2 modules
- Possibilité de réalisation d'un interrupteur central (par exemple pour plusieurs prises, ou un ensemble prises/interrupteur)

Installation Instructions

In addition to the package contents, you will need a measuring tape; pliers to cut the cable; universal glue for the electric channels and a small saw.

Before installing the electrical system, it should be clear where you want to put each piece. It's a good idea to sketch a brief electrical plan as shown in illustration 1, for example.

Plug-Cable Installation

Remove the contact pins from the plug casing. Push the cable through the large hole in the middle of the plug. Remove the insulation from both cable wires by approximately 5 mm. The individual wires should be bent backwards and threaded into one of the holes for the contact pins. The wires are then fixed by re-inserting the contact pins in the appropriate holes. The contact pins should be pushed in as far as they go (ill. 2).

Installation of the Individual Modules (without electric channels)

Remove the protective layer from the adhesive surface on the lower surface of the module and attach where required. When doing this, pay attention to the side entrance and exit points for the plugs!

Then simply link the module together with the plugs and cables.

Wall and Ceiling Installation of the Electric Channels (including modules)

First of all, decide on the exact positioning of the modules (distributor boxes, switches, etc.). Then measure the distance (x) between the modules (ill. 3) and with the help of a saw and the mitre slits, shorten the wooden channel accordingly. Lay two wires only in the grooves provided in the wooden channel and allow a minimum of 4 mm wire overhang at each end of the wooden channels. The wires should be glued in the channels with a universal glue up to approximately 20 mm from the ends of the channel. Allow half-an hour's drying time and then shorten the wire ends with pliers so that they overhang the ends of the channels by exactly 4 mm. Now take the module which you intend to position here and connect it to the wire overhang jutting out of the wooden cable channel. Remove the protective paper from the adhesive strip on the bottom of the module and the wooden channel and then stick the complete assembly where required (ill. 4).

Continuous Corners Solutions – There are basically two possibilities (ill. 5):

1. By using a distributor box.

2. By cutting two ends of the wooden channels at a 45° angle by means of the slits provided and bending the wires that are going to be placed in the grooves at a 90° angle (ill. 6).

Recommendation: To make the complete electrical assembly easier use only one continuous corner solution with a 45° angle cut between two modules, as described in method no. 2 above.

Tips and Tricks for Specialists

+ When using a moveable joint module which has been put together using several socket units, simply glue them to a strip of cardboard which has been cut to exactly the same size as the joint module (ill. 7).

+ It is even possible to connect modules to flush-mounted electric wires. Open the casing carefully with a small screw driver (ill. 8). Twist the power supply cables onto the metal contacts tightly. Thread the cable through the big opening in the floor casing. Position them on the wall / ceiling and put the casing in place.

+ The modules can also be mounted with tiny nails (1 mm diameter). To do this, remove the casing (ill. 8) and use the tiny holes in the floor casing.

+ Direct piercing of the walls / ceilings:

1. With a simple cable:

Firstly, drill a hole which is the exact size of the cable. Pull the cable through and attach a plug to the end of the cable.

2. With an electric channel positioned in a straight line (ill. 9):

Make two 2 mm diameter holes on the ceiling with 6.3 mm between the holes (measured from hole centre to centre) and 3 mm away from the wall (ill. 10). Remove the wall and drill the holes. Two wires which have already been cut off to the required length should then be pushed through the holes, positioned correctly and fixed with universal glue to the drilled holes in the ceiling. When the glue is dry, attach the module to the end of the wires (4 mm deep) and fix to the wall. The electrical channel, which has already been cut to the exact length between the modules and the ceiling should be placed over the wires.

3. Connection of two modules on each side of a wall:

Drill two holes of 2 mm diameter in the wall with 6.3 mm between them (measured hole centre to centre). Bend two wires to an angle of 90° (ill. 11), push them through the holes and bend them to 90° again. The ends of the wires should be shortened to the same length, attach the modules (4 mm deep) and fix to the wall. Now cover the exposed wires with the right length of electric channel and fix it with glue.

By the way, have you ever thought of a front door bell for your doll's house? You'll find one listed under article no. 6395 in our catalogue!