

## INSTALLATION INSTRUCTIONS FOR FLOOR-MOUNTED PRODUCTS

- THE GW0001 & GW0016 GLASS ROD'S AND GW0009 GLASS BUTTON'S INSTALLATION-INSTRUCTIONS ONTO MOSAIC CONCRETE- AND STONE FLOORS
- INSTALLATION OF THE GLASS ROD'S MOUNTING CHANNEL WITH PICTURES
- INSTALLATION INSTRUCTIONS FOR PRODUCTS MOUNTED DIRECTLY ON TOP OF SURFACES

## 2. THE GW0001 & GW0016 GLASS ROD'S AND GW0009 GLASS BUTTON'S INSTALLATION-INSTRUCTIONS ONTO MOSAIC CONCRETE- AND STONE FLOORS

### 1.1 INSTALLATION OF THE PHOTOLUMINESCENT RODS



GW0042



GW0001

GW0042, Mounting channel for the rod (HST-steel)

GW0001, Green guide rod with an opaque surface

GW0016, Green guide rod with an opaque surface, tempered

Mounting glue: WURTH polymer adhesive and sealant.

Required installation space for the rod's mounting channel: width 30 mm, depth 15 mm.

### Installation of the mounting channel for the rod

Installation of the mounting channel when the floor tiles or stones have been laid directly onto semi-dry concrete.

Fill the slit with grout so the depth of the slit remains 15 mm at a minimum and the width at 30 mm, for installation of the mounting channel. The mounting channel is glued in by filling the slit with the adhesive. After application of the adhesive, the mounting channel is pressed into the slit and lightly tightened with screws through the countersunk holes at the bottom of the mounting channel, so that the mounting channel is lightly tightened into the slit and the collar of the channel rests on the stone throughout its length. Excess glue is to be wiped off immediately after installation with a damp cloth and e.g. Berner Ltd.'s Marinol 100 -liquid.

The next extension mounting channel is to be installed so that it is in line with the already installed mounting channel. A guide rod is used on the junction points to automatically position the next mounting channel onto the right trajectory.

### **Protecting the mounting channels**

The mounting channels can be protected by, for example, sawing 25x12 mm pieces of plywood into the whole length of the mounting channels, that have been installed into the floor. The rods themselves are to be installed into the mounting channels at the end of the construction project after all other heavy work has been concluded.

### **Installation of the guide rods**

The rods are installed into the mounting channels with Wurth-polymer adhesive and sealant so that the glue fills the whole bottom of the mounting channel. There should be so much glue in the channel that when the rod is pressed to the bottom of the mounting channel, excess glue comes out from between the rod and the edges of the mounting channel, preventing moisture from getting under the rod.

Excess glue is to be wiped off immediately after installation with a damp cloth and e.g. Berner Ltd.'s Marinol 100 -liquid. **A gap of approximately 2 mm is to be left between the rods.**

These measures are to be taken so that moisture or dirt cannot get in between the mounting channel and the guide rods.

## 2.2 INSTALLATION OF THE PHOTOLUMINESCENT BUTTONS



**GW0062**



**GW0009**

GW0062, Mounting cup for the button, 3 mm lining (HST-steel)

GW0009, Green warning button with an opaque surface

Mounting glue: WURTH polymer adhesive and sealant.

Required installation space for the button's mounting cup: width 28 mm, depth 13 mm.

### **Installation of the buttons into holes on stone**

Glue is squeezed into the hole so that when the mounting cup is pressed to the bottom the space between the stone and the cup is completely filled with glue. It is important to in this way prevent water and dirt from getting in between the cup and the stone.

### **Protecting the mounting cups**

The mounting cups installed into the rock can be protected with a piece of plywood, for example. The buttons themselves are to be installed into the cups at the end of the construction project when all other heavy work has been concluded.

### **Installation of the warning buttons**

The warning buttons are installed into the mounting cups with Wurth- polymer adhesive and sealant so that the glue fills the whole bottom of the cup. There should be so much glue that when the button is

pressed down to the bottom, excess glue comes out from between the button and the cup. Excess glue is to be wiped off immediately after installation with a damp cloth and e.g. Berner Ltd.'s Marinol 100 -liquid.

These measures are to be taken so that moisture or dirt cannot get in between the mounting cup and the guide buttons.

### **2.3 INSTALLATION OF THE GLASS ROD'S MOUNTING CHANNEL WITH PICTURES**

#### **Chopping or cutting the HST-mounting channel to corners of different degrees**

A metal cutting machine appropriate for the task is required or a self-made mount that the channel can be firmly fastened to while cutting. Cut with a jigsaw that has a small tooth blade appropriate for cutting HST metal.

Straight cuts cannot be achieved by cutting freely by hand. CHECK pictures 1-4.



Picture 1



Picture 2



Picture 3



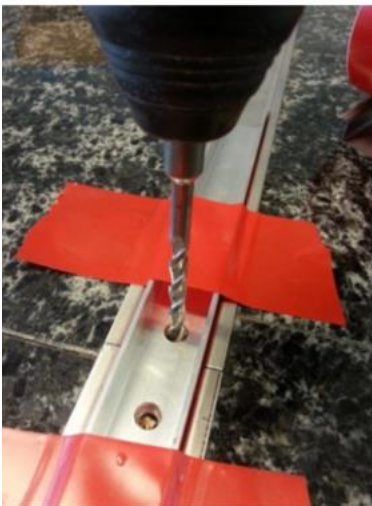
Picture 4

After the mounting channels have been cut to their appropriate angles, **ROUND OUT** the outer edges of the mounting channel's lining. Check picture 5.



Picture 5

When installing the mounting channels and drilling holes into the floor it is important that the mounting channels are set in line with each other, in such a way that the guide rods can also be fit into the channels as a long line. For this purpose, a 25 mm wide and at least 300 mm long aluminum U-profile can be utilized. Drill two 10 mm holes in the middle of the profile, 30 mm apart measured from the middle of the holes. By doing so, the holes on the U-profile and the mounting channels are aligned with each other when the ends of the channels are attached. The drilling can be done through a U-support profile. Check pictures 6 and 7.



Picture 6



Picture 7

**IMPORTANT! THE INNER MEASUREMENT OF THE HST-MOUNTING CHANNEL IS APPROXIMATELY 25,90 mm,** in picture 7, a U-profile's width has been utilized to add one layer of thick plastic tape. Thus, more tightly fitting support is achieved, enabling a straight trajectory.

The adhesion of the mounting channel is done with Wurth- polymer adhesive and sealant. Applied to the whole length of the underside of the mounting channel's edged collars, on both sides. By doing so ensuring the adhesion to the tile and preventing moisture from getting into the structure. Picture 8.

So much Wurth polymer adhesive and sealant is to be applied into the concrete slit, that when the mounting channel is pressed down onto the floor, the glue spreads throughout the whole bottom of the channel providing a sufficient seal, picture 9.



Picture 8



Picture 9

The channel is to be screwed onto the floor BY UTILIZING A U-PROFILE TOOL, THUS ENSURING THE LINE STAYS STRAIGHT. In picture 10 an aluminum U-profile tool can be seen. **The screws are absolutely not to be tightened too much**, otherwise the rod will no longer fit inside the channel. Always when the screws have been fastened, immediately before the glue dries it is to be made sure that the guide rod fits into the mounting channel. The main purpose of the screws is to lightly fasten the channel onto the floor, so it stays put while the glue dries.



Picture 10

Screws RST 4,5x30 mm, and fixing plugs 6x30 mm. The holes in the HST-mounting channel have been countersunk so that the screws go deep enough and thus won't touch the bottom of the glass guide.

### **Chopping or cutting the glass guide into the desired angle**

A water-cooled diamond saw is to be used for cutting. In picture 11 a 45-degree plywood guide piece has been cut out to enforce the correct trajectory. Also, be aware if tempered glass guides are used for the project: **only non-tempered glass is suitable for cutting!**



Picture 11

Picture 12 shows a 90-degree corner connection. The glass guides are to be glued into the HST-mounting channels at the end of the project when all heavy work has been concluded. By doing so ensuring that the

glass guides won't break as a result of being driven over by heavy machinery. A 2 mm gap is left between the glass rods as shown in pictures 12 and 13.



Picture 12



Picture 13

### **3. INSTALLATION INSTRUCTIONS FOR PRODUCTS MOUNTED DIRECTLY ON TOP OF SURFACES**

#### **3.1 ADHESION OF THE GW0046 ALUMINUM GUIDE LIST AND THE GW0004 POLYCARBONATE LIST**

The list is glued on with Wurth polymer adhesive and sealant. The aluminum anodized guide list is grey in color; therefore, it is recommendable to use the light grey colored polymer adhesive. Before adhesion, the floor, as well as the bottom of the list are to be carefully cleaned of dirt and grease. After this, the glue is spread evenly to the bottom of the guide list and the list is glued by firmly pressing it onto the chosen trajectory (picture 1).

For the duration of the glue drying the lists should be secured with duct tape or another such tape, so that the lists stay put and inline (picture 2).

If necessary, the adhesion can be improved by drilling holes in the middle of the lists, spaced out according to preference, with a 5-6 mm drill. By countersinking the holes, the screws can be lowered to even level with the guide list. The recommended screw is the Wurth A4 plate screw with a 4,2 mm half dome head, DIN 7983C (picture 3).





Picture 1



Picture 2



Picture 3

### 3.2 ADHESION OF THE GW0059 RST-SCREW

If preferred, onto natural stone or ceramic tiles, 10-12 mm holes for guide pins can be water cut beforehand. The portion of the screw is 20 mm in length and 8 mm in width, the width of the flange being 25 mm. Holes for the guide pins can also be drilled afterward.

After drilling it is very important to clean the hole carefully of sawdust using compressed air, making sure the thin head of the sprayer goes all the way to the bottom of the hole, the Wurth puhallus-spray 1893660 is suitable for this work stage. Vacuuming or spraying the top of the hole will not clean out the bottom of the hole.

For adhesion, a chemical anchor can be used or Wurth polymer adhesive and sealant.

Dosing of the glue into the drilled hole should be done so that when pressing the guide pin into the hole, the whole portion of the screw is covered with glue. The RST-button can also be installed into the floor using the 10 mm plug that comes with it.

A 10 mm hole is drilled into the floor and cleaned according to previous instructions. The plug and the screw are hammered into the hole together, so deep that the bottom of the flange is flush with the floor.



GW0059 RST-button and plug