

***Click !***

**MECHANICAL INSTALLATION**  
**(Instructions for the engine layer)**

***1) General features***

Click! is the smallest automatism to electrically open and close shutters or jalousies, and is applicable to every kind of windows and French windows.



**fig.1**

## 2) Installation

### 2.a) The system includes:

N° 2 Gearmotor-fixing False frames

These are the holders that will be inserted into the wall, outside.



N° 2 Gearmotors (one for each shutter)

These are the mechanical actuators that will be mounted in the false frames.



N° 1 Electronic control card  
(control unit)



N° 1 Power-supply unit

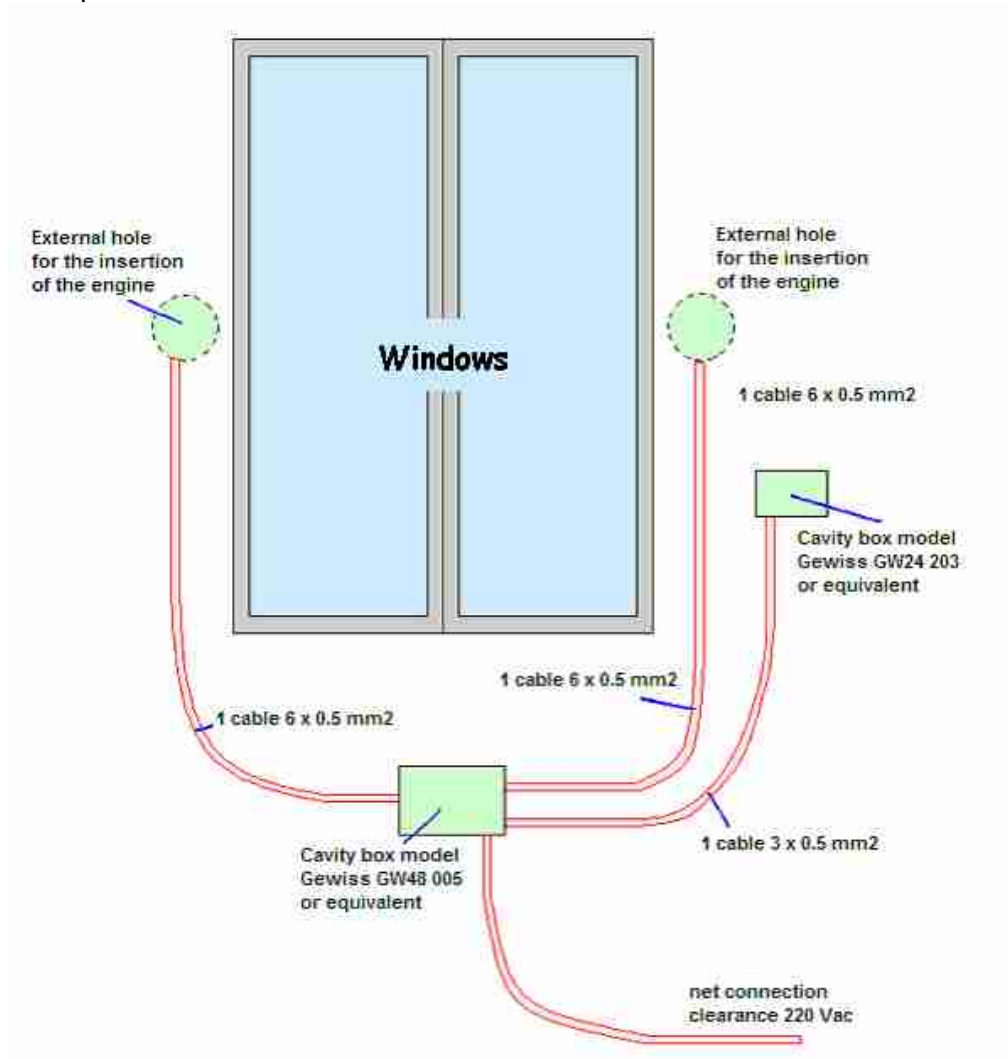
Plate with transformer and **optional** battery



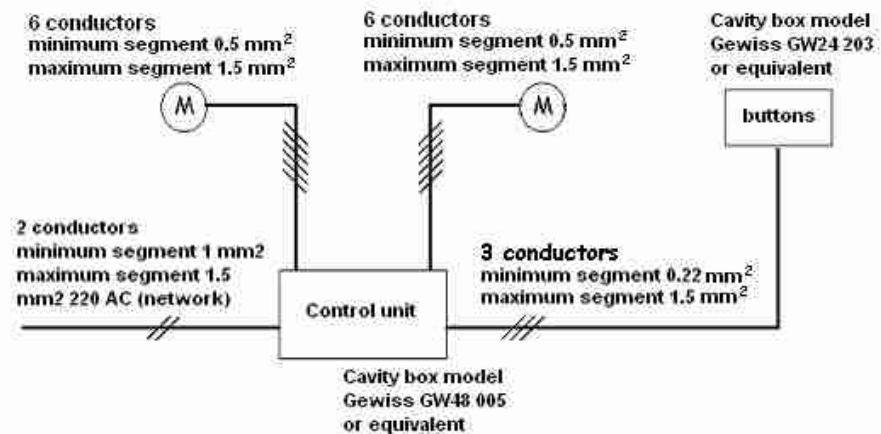
## 2.b) Preparing the electrical system for the installation of the Click! device

The control unit and the control panel (with transformer and optional battery), have to be placed where one prefers but near the window, on the contrary, the two engines have to be placed next to the dragging hinges of the shutters.

The following figure shows the advised positions of the various parts of the system, and the best disposition of the conduits for the electric connections.



Following is the scheme (single-wired) of the system that will be realized:



## Cavity boxes necessary to build up the system are:

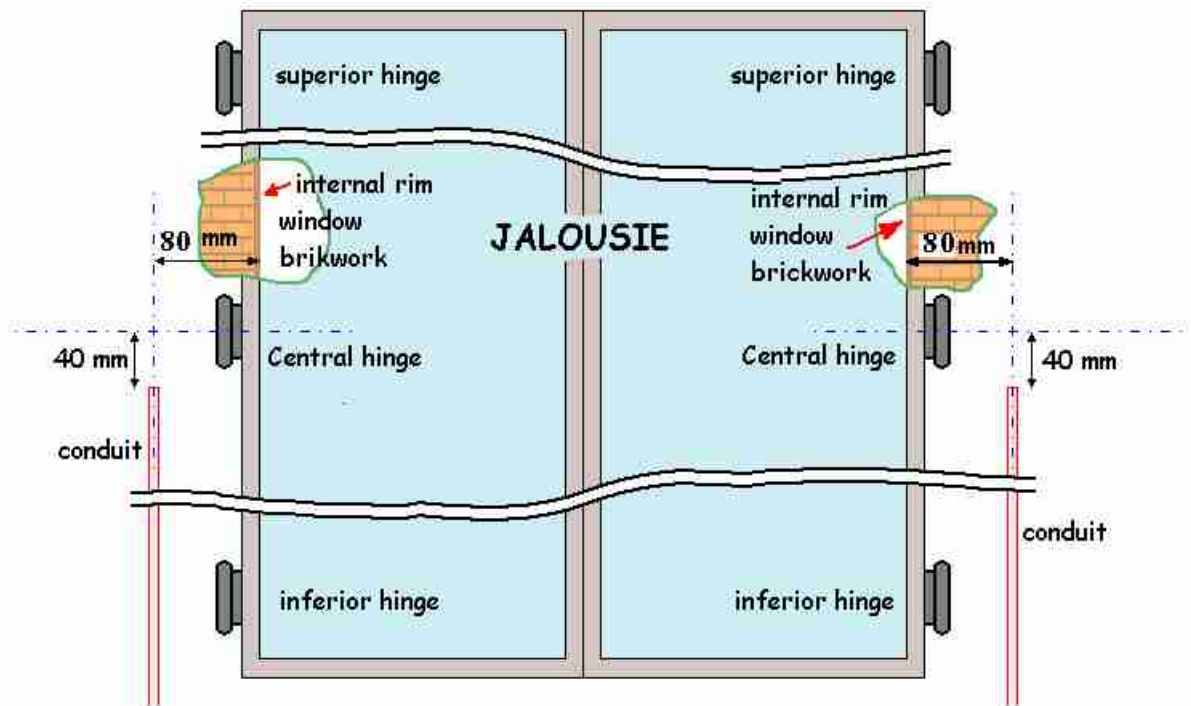
N. 1 Model Gewiss GW48 005 (160 x 130 x 70) or equivalent, for the control unit and the power supply.

N. 1 Model Gewiss GW24 203 (119 x 80 x 50) or equivalent, for the control buttons.

From the electronic control unit box comes out n. 4 conduits, with the following cables:

- a bipolar cable with a segment larger than/equal to 1mm<sup>2</sup>, for the 220 V AC network;
- two 6-poles cables, with a 0,5mm<sup>2</sup> segment, for the connection of the gearmotors;
- a cable with three conductors with a segment equal to/larger than 0,5mm<sup>2</sup>, coming from the command's cavity box.

In order to place correctly the two conduits designated for the cables of the two gearmotors, as a reference, instead of the wholes of the gearmotors, take the axis of the **dragging hinge** (which is placed, on the following figure, centrally on the two shutters): **the point where the conduit arrives has to be 40mm lower than the axis of the hinge, and 65mm from the interior rim of the window opening, as shown on the following figure.**



## 2.c) Preparing the fixing of the Gearmotors-Drilling Templates Groups

The Click! System can be installed on original "Click!" frames having concealed hinges or on frames (with or without loom) having standard hinges, therefore the position of the engines will vary depending on the hinge type.

**2.c.1) Jalousies having concealed hinges (originals for "Click!")**

**The Click! Concealed hinges Kit (for two-shuttered jalousies) includes:**

*N. 2 Concealed hinges with hexagonal hole, for the coupling with the driving pin*



*N. 2 Hexagonal driving pins*

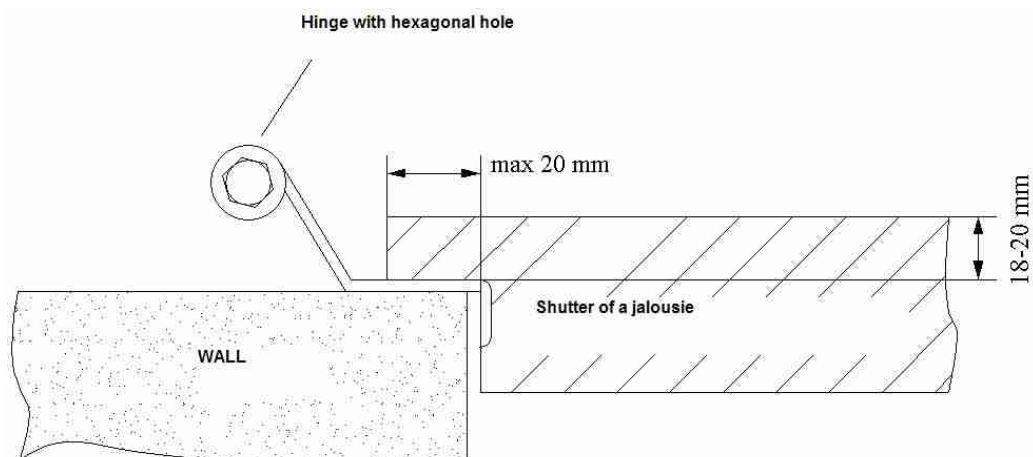


*N. 4 Normal hinges with a round hole Ø 12mm, For the support of the jalousies/shutters.*



**The only mechanical constraint to respect, shown in segments on the following drawing, is the external rebate of the jalousie, which should not be more than 20mm.**

The Click! concealed hinges can be mounted on all jalousies made for this kind of iron fittings, whether it is aluminium or wood.



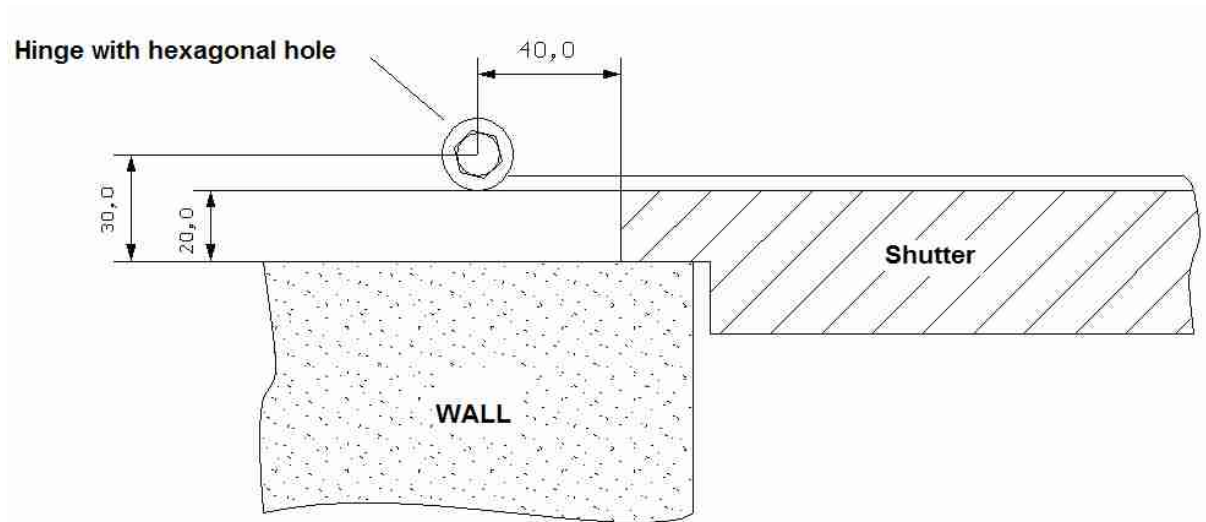
## 2.c.2) Jalousies with external straight hinges, with motion transmission on the hinge

The external straight hinges, if wished, can use a special extra third straight “Click!” hinge, **furnished as an accessory**, for the transmission of the motion directly on the hinge (as for the concealed hinges).

The following drawing shows the schematized segment of one hinge with dimensions, that allows the transmission of the motion directly on the axis of the hinge, and shows the constraint that has to be respected:

***the centre of all the hinges (rotation and dragging ones) has to be 30mm from the wall and 40mm from the jalousie’s external rim.***

In this case the gearmotor can be installed even more centrally, confronted with the normal hinges, using the hinge with the hexagonal hole, which will be perfectly in line with the gearmotor.



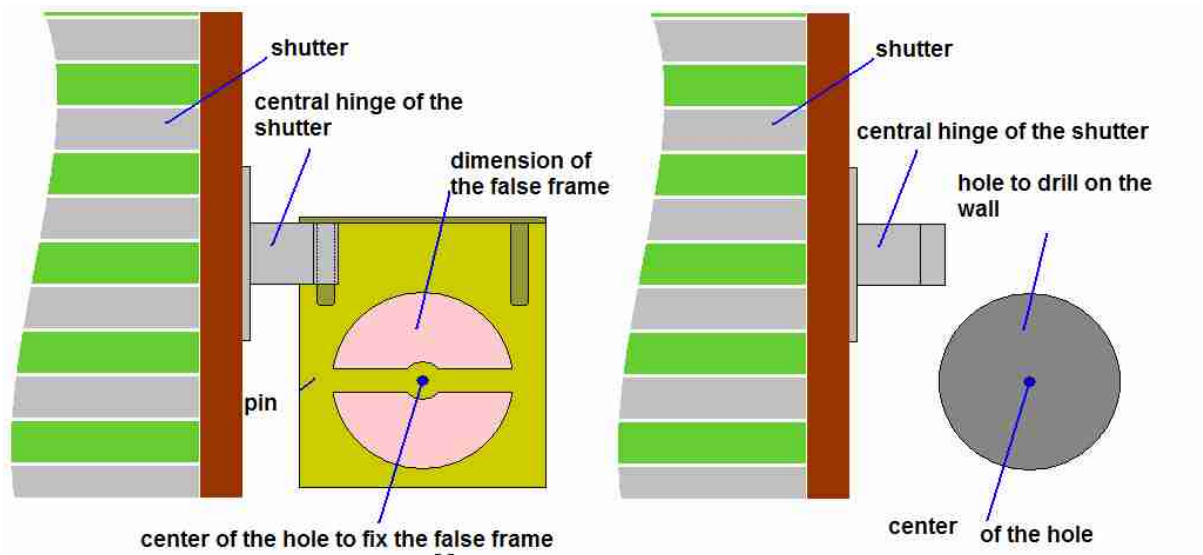
In order to drill (core) the wall, where the two engines will be placed, proceed as followed:

- fix the jalousies to the window in the usual way, using the four external hinges (two for each shutter), drill the holes and mount the “normal” hinges.
  - insert the internal pin of the template in the corresponding hexagonal hole of the central hinge, and make the flat surface of the pin fit perfectly to the wall.

The pin shows on the wall the centre of the hole and the dimensions of the hole necessary for the false frames, as shown in the following figures:

*Pin to detect the hole to fix the Gearmotors*



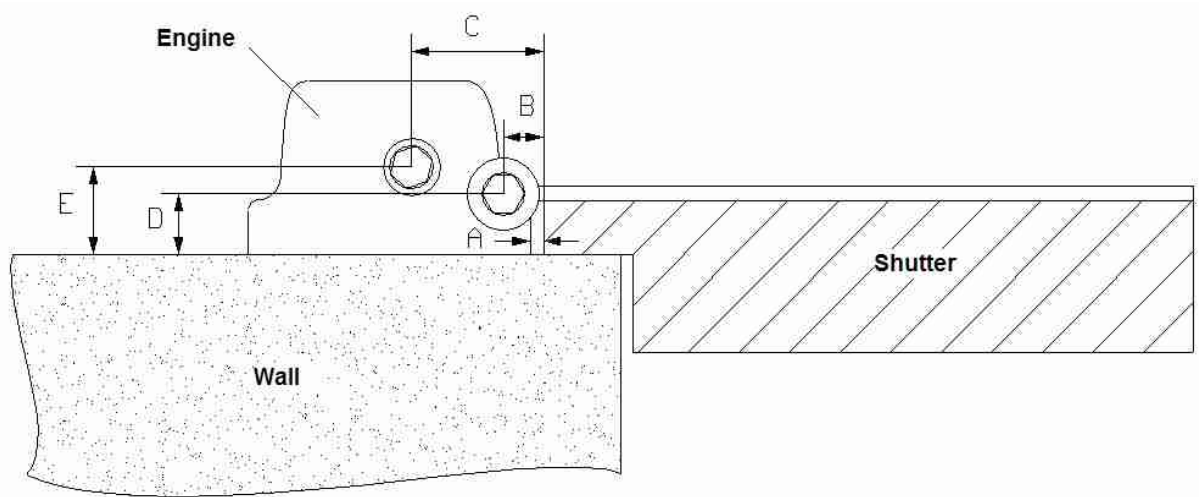


For drilling the wall and the fixings, please see paragraphs 2.d), 2.e) and following, from p.14 of this guide.

**2.c.3) Jalousies with external straight hinges, and motion transmission with self-lubricating rail.**

When one has different hinges than the one described above, for the transmission of the motion it is necessary to adopt the kit of arms with self-lubricating guides. With the drawing below as a reference, where a different hinge than the ones described above is highlighted, the mechanical constraints that have to be respected to use the “universal” hinges with self-lubricating guide are quantified. With the figure below as a reference we define:

- “A” = distance between the rim of the gearmotor and the exterior rim of the jalousie;
- “B” = distance between the centre of the hole of the hinge and the exterior rim of the jalousie;
- “C” = distance between the centre of the gearmotor’s pin and the rim of the jalousie;
- “D” = distance between the centre of the hole of the hinge and the rim of the wall;
- “E” = distance between the centre of the gearmotor’s pin and the rim of the wall;



**Usually the gearmotor is mounted in a way that:**

**“A” = 6,5mm**

**“C” = 40mm**

**“E” = 30mm**

**But, in order to be able to use correctly the sliding block, it has absolutely always to result that:**

**“B” is less than 40mm**

**“D” is less than 30mm**

**When “B is less than 40mm” and/or “D is less than 30mm”, to allow the full opening of the jalousies it is necessary to mount the engine outside the profile of the jalousie (on top or in the bottom, see following figures), with the sliding block on the front or on the superior rim (or inferior) of the jalousie.**

### **Arm kit and self-lubricating rails**

*Slide for frontal assembly on the jalousie*



*Universal hinge with frontal sliding block*



*Slide for assembly on the jalousie's rim*





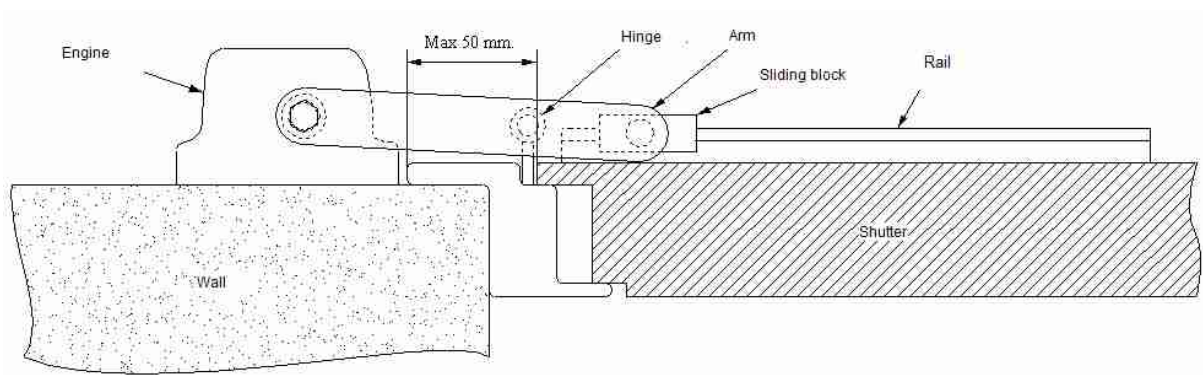
*Universal hinge with sliding block on the superior rim of the jalousie*



***If it is an extreme case, with  $D = 30\text{mm}$  and  $B = 40\text{mm}$ , the slide is not longer necessary and the preceding case, 2.a), has to be considered, with transmission of the motion directly on the hinge (External straight hinges).***

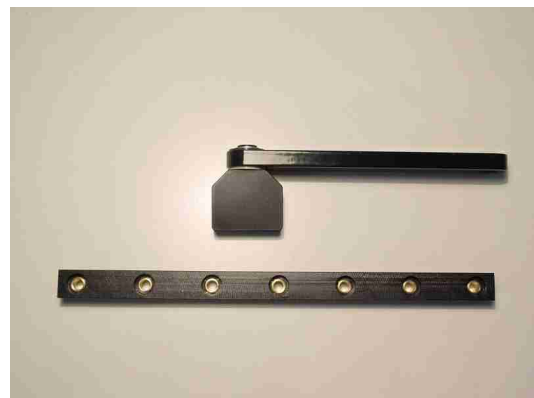
**2.c.4) Jalousies with frames**

Even in the case of jalousies with frames, concerning the transmission of the motion, it is necessary to use an arm kit with self-lubricating rails, with major dimensions compared to the ones above, because the frame (external frame) removes the engines from the hinges. The following drawing shows, in a segment, the shutter of one jalousie with frame and the application of the kit (arms with self-lubricating rails):



***In order to use the kits with this kind of jalousies correctly, it is necessary that the distance between the exterior rim of the frame and the exterior rim of the shutter is NOT bigger than 55mm.***

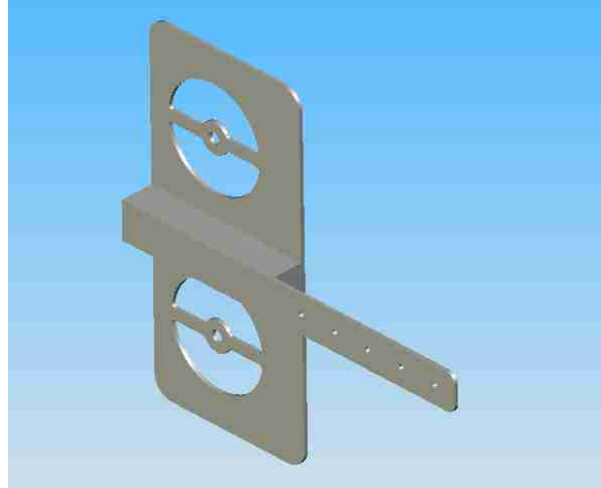
*Kit for jalousies with frame*



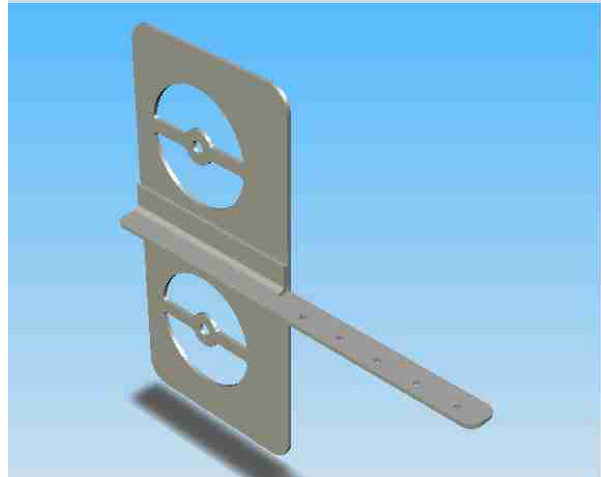
Even if the arm and auto-lubricating rails kit is used, in order to place correctly the electrical system's conduits for the engines, it is necessary to individuate, with the drilling templates, the fixing points of the engines.

**Templates for kit with arms and auto-lubricating rails:**

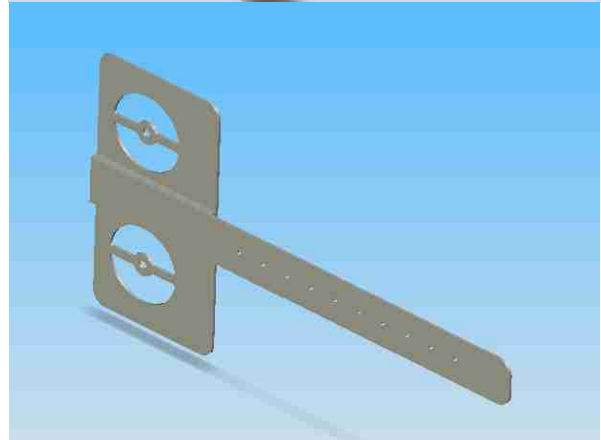
*Template for kit with frontal sliding block*



*Template for kit with sliding block on the superior rim of the shutter.*



*Template for kit jalousie with frame*



The templates for the kits with sliding block, is made of two parts: the profile that individuates the hole for the engine and the bored list that individuates the position + the holes for fixing the sliding block on the jalousie.

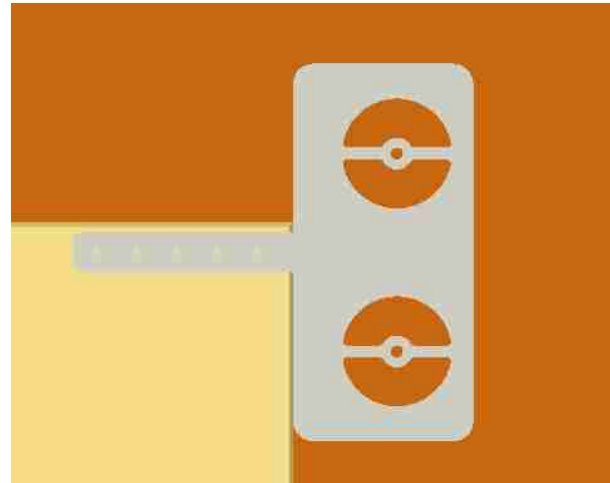
In order to mark the points where the drilling (coring) of the wall will be made, for the two engines, proceed as illustrated on the following drawings.

**Assembly of the Kit with frontal sliding block:**

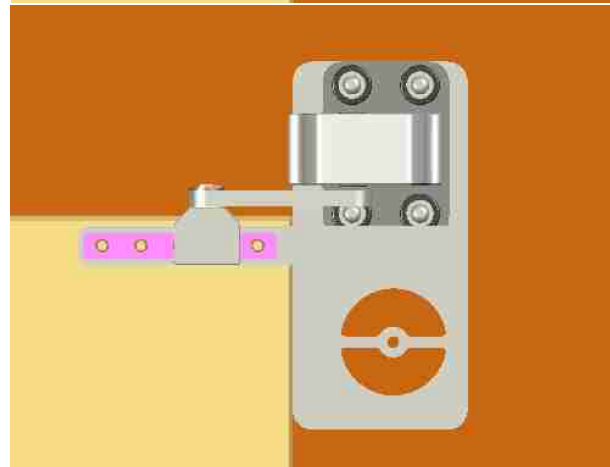
1) rest the template on the lateral rim of the jalousie, taking care that the list that individuates the drilling points and the fixing of the sliding block is placed next to the superior rim of the shutter.

2) Mark on the wall the hole of the coring for the engine (the upper hole), and on the shutter the holes for fixing the auto-lubricating sliding block.

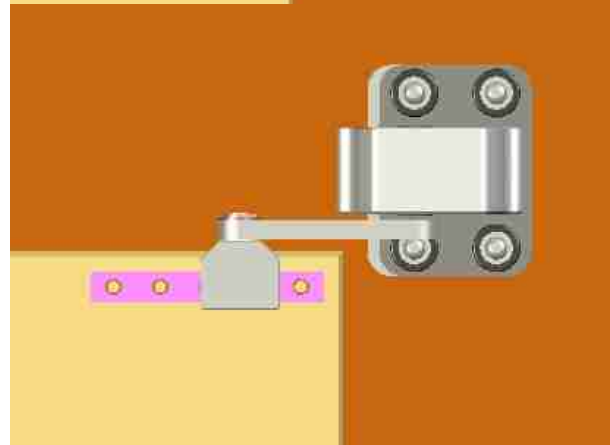
3) Repeat the operation for the second shutter.



Explaining drawing, with the Engine group + Kit placed on the template.



Drawing of the Engine and the Sliding block, mounted with its arm and rail.

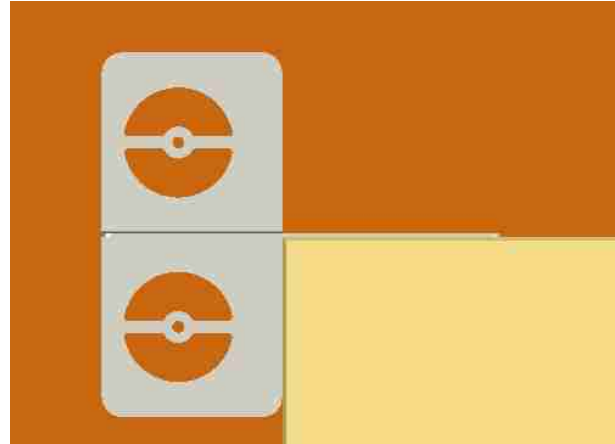


**Assembly of the Kit with sliding block on the superior rim of the shutter:**

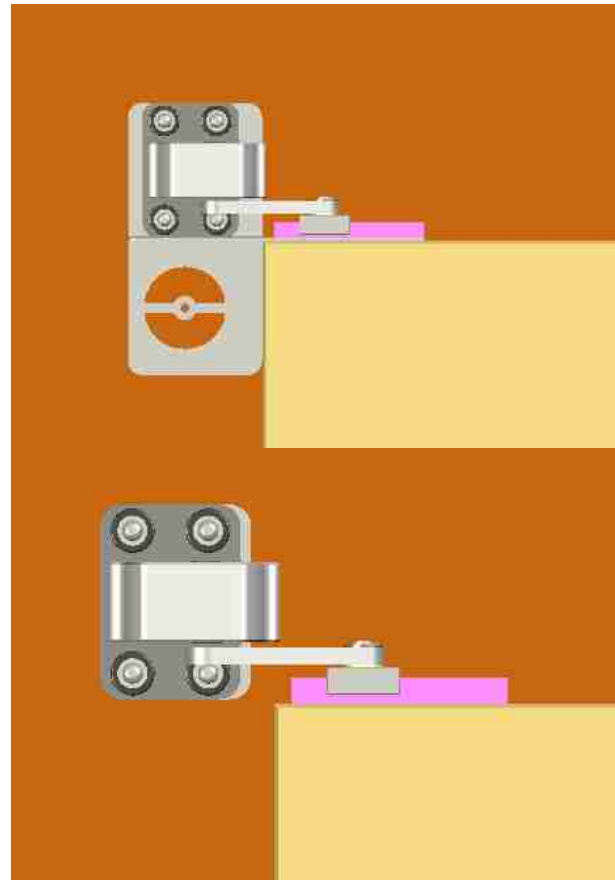
1) rest the template on the rim of the jalousie, taking care that the list that individuates the drilling points and the fixing of the sliding block is placed on the superior rim of the shutter, **which has to be min. 18mm.**

2) Mark on the wall the hole of the coring for the engine (the upper hole), and on the rim of the shutter the holes for fixing the auto-lubricating sliding block.

3) Repeat the operation for the second shutter.



*Explaining drawing, with the Engine group + Kit placed on the template.*



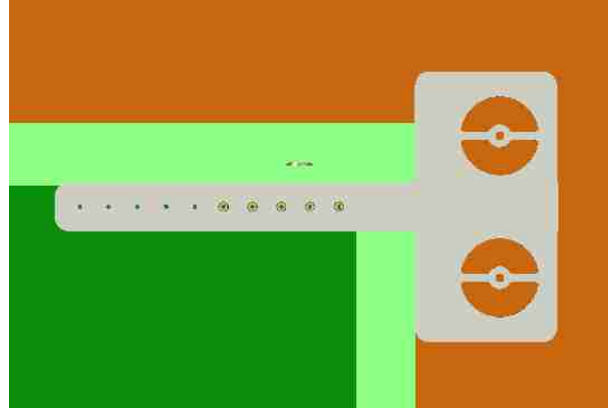
*Drawing of the Engine and the Sliding block, mounted with its arm and rail.*

**Assembly of the Kit with long sliding block, for jalousies with frame:**

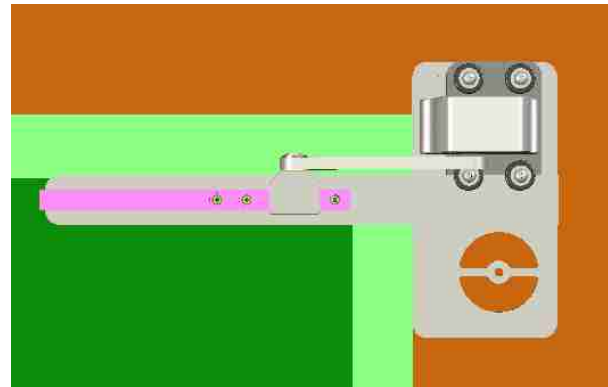
1) rest the template on the rim of the frame, taking care that the list that individuates the drilling points and the fixing of the sliding block is placed next to the superior rim of the shutter.

2) Mark on the wall the hole of the coring for the engine (the upper hole), and on the rim of the shutter the holes for fixing the auto-lubricating sliding block.

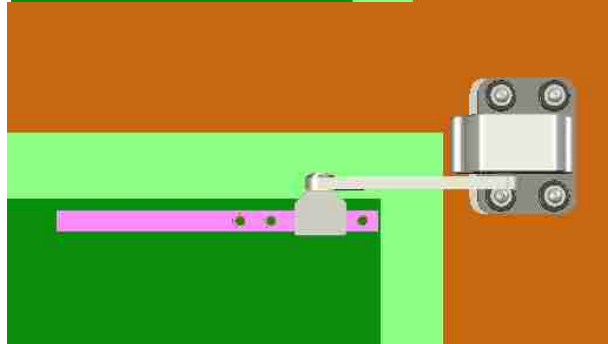
3) Repeat the operation for the second shutter.



Explaining drawing, with the Engine group + Kit placed on the template.



Drawing of the Engine and the Sliding block, mounted with its arm and rail.



**In all three cases with Kit with auto-lubricating rails, the conduits for the connection to the engines has to arrive at the centre of the hole made for the Gearmotor (diameter 55mm), and be approximately 16/18 cm deep.**

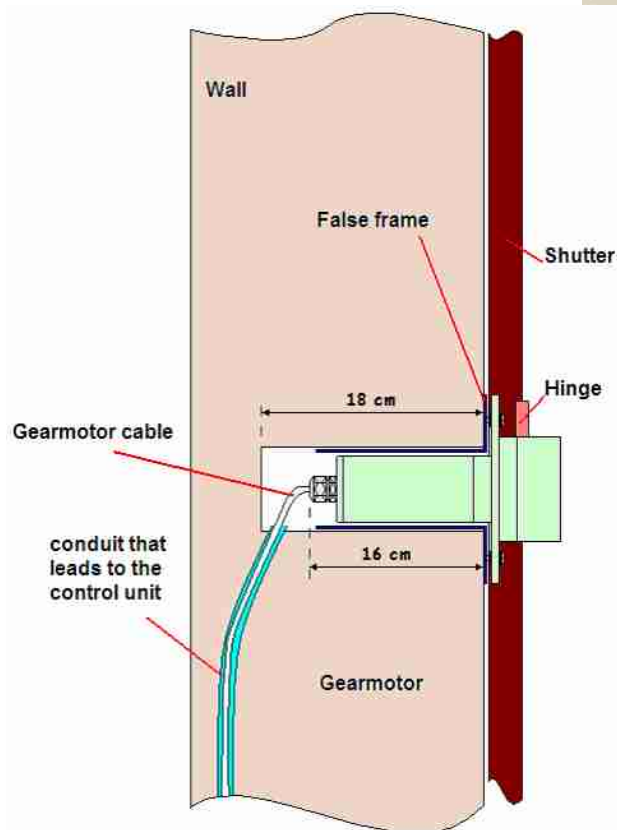
## 2.d) Drilling the wall

Once individuated the points for the drilling in the wall for the assembly of the engines, in all cases the following procedure is to be followed:

- Make the holes in the wall, one for each shutter, with a self-feed bit for brickwork, that is able to make a blind hole of diameter 55 mm and deep at least 18 cm. This hole will have to intercept the earlier placed conduit (at least 16 cm from the exterior wall in order to not interfere with the false frame).
- Insert the cable that comes out from the gearmotor in the conduit, making it go down all the way to the cavity box that will contain the electronic control unit.
- Insert in the hole the false frame with the gearmotor, make sure that the gearmotor is in horizontal position and check, with the help of the round pin, the exact alignment between the hexagonal hole of the gearmotor and the dragging hinge or the hexagonal hole of the transmission arm.
- Check also, moving the shutter, that no friction or misalignment is opposing itself to the opening and the closure of the jalousie.

### Round pins

*They have to be inserted to put the hexagonal hole of the Engine in-line with the hinge of the motion transmission or with the arm connected with the Rail to the sliding block, in order to correctly fix the Gearmotor-False frame group in the wall.*



### **2.e) mechanical fixing of the False frame/Gearmotor Group in the wall**

- Remove the round pin from its place, partially extract from the wall the false frame/gearmotor group and apply on the external sleeve of the false frame the chemical adhesive on a max 10 ÷ 11 cm long surface.

It is very important not to exaggerate with the adhesive, because, if one puts too much, it could block the cable of the gearmotor inside the conduit or the gearmotor itself inside the false frame.

- Once applied the chemical adhesive, reinsert the false frame/gearmotor group in the hole, block it in the correct position through the round pin (in-line with the hinge or the arm of the rail).

Let rest the chemical adhesive following the indications written on the adhesive.

Repeat the already described operations (2.c - 2.d -23.e) also for the second shutter.

When the chemical adhesive is “dry”, check that the gearmotors have correctly been assembled: with the provisory round pin inserted in the dragging hinges: closing and opening the jalousies, no resistance has to occur.

### **2.f) fixing the container model Gewiss GW48 005 (160 x 130 x 70) or equivalent, for the apparatus “control card – transformer – optional battery”.**

This apparatus will have to contain parts that, if touched by liquids or dust, could get damaged.

The container and its closing panel, have to hinder the entrance of dust and splashes, and when it is put in function this has to be considered.



This box has to be fixed next to the window and has, in any way, to be always visible.

The metallic plate to which the transformer and the **optional** battery is fixed has to be fixed in the bottom of the box already fixed in the wall through screws placed in the corners of the base itself, (three or four depending on the version).

**If the chosen options require it (remote control or battery-only power supply),** the closing panel of the cavity box is included in the kit to open the jalousie.

This panel has bigger dimensions than the advised cavity box, and has to be fixed to the wall through four screws with plugs.



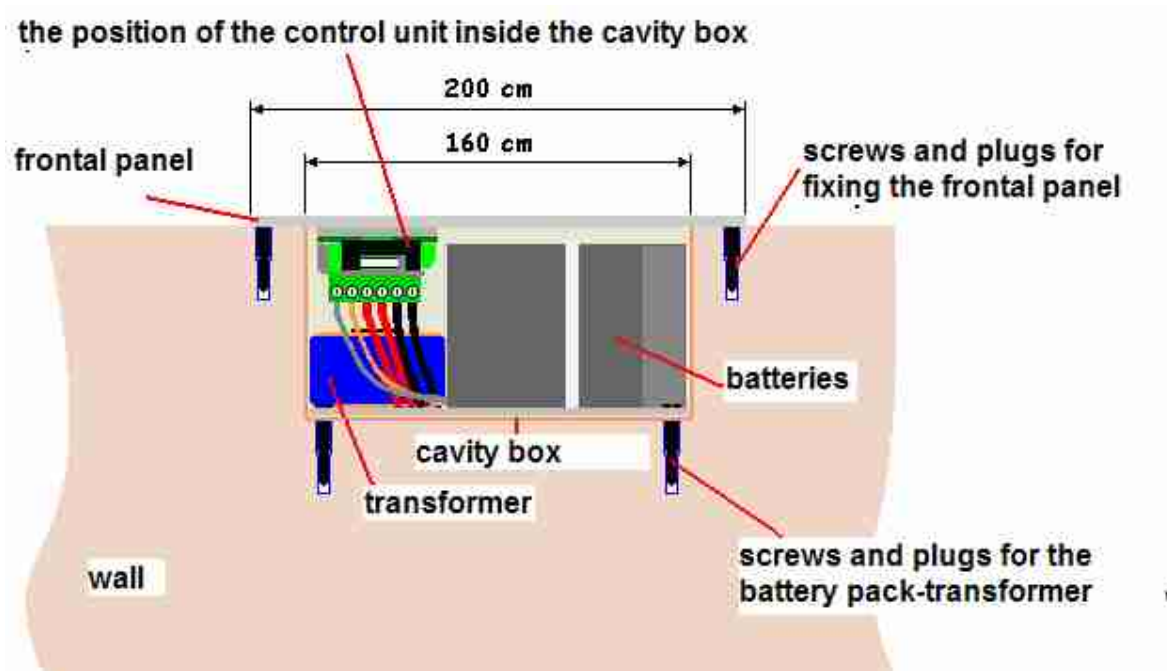
Standard frontal panel, from the cavity box model GW48 005.



Frontal panel that comes as an option with Click!, if the kit demands it, for the cavity box model GW48 005 or equivalent.

On the standard panel the electronic card is fixed to the plate with the transformer and the optional battery, on the optional panel, on the other hand, the electronic circuit is fixed on the panel itself.

When fixing the same panel to the wall, the electronic card has to be placed on the side where the transformer is, next to the battery pack, as shown on the following figure.



To the control unit will arrive the  $220V_{AC}$  mains cable (two conductors), the two cables for the engines, and the command cable (three conductors).

How the conduits are placed has already been explained in the paragraph 2.b of these instructions.



**2.g) fixing the command box with the open/close buttons, model Gewiss GW24 203 (119 x 80 x 50) or equivalent**

The command box has to contain two buttons Normally Open (N.O.) and without retention: one for the closure of the shutters and the other for the opening.

The buttons are not part of the kit, and in the cavity box one will have to insert “body holders”.

The command box has to be placed next to the window, to be able to feel, during the maneuver, possible obstacles that could hinder the motion.

**2.h) Electrical connection of the system**

***For the electrical connection of the system and its activation, please see the guide “Circuitry”.***

One should remember, though, that the automation system CLICK! **has to be assembled, connected and operated only by authorized personnel**; its power supply has to be taken from an electrical system built after the current national norms, and in particular one should control the presence of a differential protection device on the cables of the 220V<sub>AC</sub> power supply of the control unit.

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