

## How to adjust terminal switches of the motor of winding device

1. After the completion of the winding tube, insert and fix the motor and connect the power cable to the control unit.
2. Winding up and unwinding of the tarpaulin or shutter is carried out by turning the tube to which the tarpaulin is attached by means of strings with special end pieces that slide into grooves on the tube. The tube turns by means of a motor, which is housed inside. The motor has two terminal switches, by adjustment of which the necessary length of unwinding can be set. **Maximum** number of tube turns from one extreme position to the other is **28**. The number of turns of the tube can be changed by simply adjusting the terminal switches (TSs). TSs are controlled by two adjusting screws using a plastic rod (part of delivery) (5 turns by the plastic rod will approximately change the tube position by one turn). When looking at that part of the motor where the adjusting elements of terminal switches are located (rear view of the motor), the adjusting element for turning the tube **clockwise** is placed on the right-hand side and for **turning anticlockwise** on the left hand-side. This fact is very important, because the motor may either be placed in the left or right section of the tube and so **we can't** speak about **winding up** and **unwinding** of the tarpaulin or shutter, but only about **turning it clockwise** or **anticlockwise**.

### *The adjusting procedure*

Run the motor **in the clockwise direction** without attached tarpaulin or shutter. After certain period of time the motor stops. This stopping is determined by actual adjustment of the terminal switch for the clockwise movement, i.e. right adjusting element. Insert the plastic rod into the **right opening** for adjusting and try whether the movement can be lengthened by turning the plastic rod **to the right**.

3. If you want to reduce the number of tube turns, i.e. to **shorten the length** of movement of the tarpaulin, turn the right screw **to the left**. If you want to increase the number of tube turns, i.t. to **extend the length** of movement of the tarpaulin, turn the right screw **to the right**.
4. Now launch the reverse run, the **anticlockwise** movement. And again allow the motor to get as far as the terminal switch. Now you will adjust the movement by the left screw. You **shorten** the movement **by turning** the left screw **to the left**. Thus you will make the movement shorter. Try it.
5. Now you can attach the strings of the tarpaulin (shutter) and start to wind up. By the screw corresponding to winding up you should pre-set the motor switching off a little bit earlier for the tarpaulin (shutter) not to turn over and gradually turn the screw to the right and lengthen the winding up until the required limit is reached.
6. When adjusting the unwinding, you proceed similarly; only adjust TS by the second screw.

### **In brief**

#### **Lengthening and shortening of switching off positions.**

Clockwise = right-hand adjusting element (moving the element to the left shortens, while moving it to the right lengthens)

Anticlockwise = left-hand adjusting element (moving the element to the left shortens, while moving it to the right lengthens)