Installation of the electrical winding system 12 V with remote control.

First check the system for completeness, that all the parts and necessary installation equipment are available.

The 12 V winding system contains the following:

1x stand for fix installation
1x prop with the 12V electrical drive as its integral parts complete with the 1.5m connecting cable, cable outlet terminal + a blind plug to be inserted instead of the outlet terminal, and a stop setting stick.
1x relevant telescopic bar sized 4.4m, 5.4m, or 7.1m long
1x bag with anchoring items for the winding system props (6x wood screw with dowel a cap)
1x bag with the solar canvas fastening items (4.4m long bar – a set of 5 clips,
5.4m long bar – a set of 7 clips, and 7.1m long bar – a set of 9 clips) incl. the self-tapping screws to fasten the telescopic bar to the prop drums
1x MSSM junction box with its control electronics, transformer and radio control receiver
2x control key ring tag

Installation itself

Installation of the telescopic rod

1. First loosen all the fixation screws on the telescopic bar and – if having the pipe split into two parts – insert the inner part into the outer one.

2. Put the short brass rollers (No. 19) underneath the loosen screw heads and slide the rollers into the grooves on the bar so that they cover the holes. Align all of them and refasten firm the fixation screws (No. 20).

3. Slide the completed telescopic bar with its one end onto the stainless prop's plastic driving drum (No. 10). On its other side slide the telescopic bar onto the prop with the electric drive so that the groove in the telescopic bar passes through the notch in the spacing rings. Then fix both sides of the telescopic bar with the wood screws (No. 21).

(an installation figure should be prepared).

4. The drive unit's cable can be routed in two ways, in particular:
1) either inside the stainless prop, then around the pool under the pavement, thereafter the best way is into the junction box in the pavement, like during the installation of the underwater lights
2) or through a pre-prepared outlet piece. Hence the cable can be led straightaway from the prop in the axis of the winding telescopic bar.

5. Slide the right number of the plastic clips (No. 25) into the groove in the telescopic bar (No. 16).

6. Place the assembled telescopic winding system on the pool edge where it should reside in the future and prepare the power supply line (it can be passed through the internal opening in the prop, or outside, using the side bushing.

(to add the figure).

7. Adjust the telescopic bar to be somewhat some 20-30 cm longer than the edge of the pool on each side. The widths of the telescopic winding system depend on the particular types as follows:
1) 4.4 m bar = foil width 4 m max.
2) 5.4 m bar = foil width 5m max.
3) 7.1 m bar = foil width 6.7m max.
Do not extend the telescopic bar in excess of our recommendations, as otherwise the bar could catch a camber and therefore the system as a whole might work wrong and suffer a damage.

8. Pass the enclosed number of the inkles through the plastic fastening riders (No. 25) and locate them away from the center, spaced each time 0.6 m – 1 m along the entire length of the telescopic bar, depending on its length.

9. Screw in the props of the winding system, using the enclosed dowels, into the surrounding pavement on the pool's edge. Make sure that the props are positioned horizontally (otherwise the prop axes might get crossed and – as a result of this, the winding system might get seized and not work well) .

10. Now you have the system prepared for the installation of the covering (solar) canvas.

Installation of the MSSM Electrical Control Box - 100W

1.Take the MSSM Control Box – 100W and drill the installation holes therein. Proceed more carefully while placing the bores into the holes, as otherwise the electronics might suffer a damage.

2.Take the motor cable and pull it through the left (viewing the panel) outlet tube and connect it to the "MOTOR" terminals. Pull the inlet cable through the middle outlet tube and connect it to the power transformer terminals.(Our recommendation is to use the Type H03VV-F 3x0,5). To connect the 230 V power socket use the Flexo Type 3x0.5 (0.75)
The system as a whole has to be connected via the current protector.

(to add the Figure A)

3.The outlet tube to the right is to connect an external push-button. Connect these push-buttons to the terminal board with the center wired to the medium lead and with both other leads so that the (external) push-buttons match those on the panel).

4. Motor startup: Before connecting the motor to the winding system, make sure that it moves in the correct direction as shown by the symbols on the panel. Should the motor move in wrong direction, swap over the motor leads on the "MOTOR" terminal board.

Caution! If you are clicking on the micro-buttons very fast, the motor cannot be started up. Everything is O.K. only after 2 – 3 seconds when the motor protection gets out of action.

5. Push-button functions and their versatility
The motor can be controlled with two push buttons. They are available:
1) on the system's control box panel (only when customized)
2) on an external push-button control box (only when customized)
3) on the wireless transmitter – key ring tag
In any of the three cases the push buttons play the same role. Each of them can be used to start up the motor in one direction. The same push buttons can also be used to stop the motor. Press one of the push buttons to start up the motor in one direction (as required). When you release the button, it will change its function, so that the motor will stop, if you depress it second time. The same result (motor stop) can also be reached in the event when another push-button is depressed. The push buttons will return to their initial functionality as soon as the motor stops. It means that the motor will start moving in the selected direction, once one of the push buttons is depressed. If you depress both push buttons at the same time, the motor will not start running. If you depress them with the running motor, it will stop.

While the motor is running, it can be turned off even without any operation of the push buttons in the following cases:
- the motor has completed the preset count of revolutions and broke its supplying circuit. The control system regulates the current through the motor. Once the power supply circuit is broken, the switch-off is the matter of about one second.
- a short-circuit or a major overload condition occurs on the motor feeding line. The time during which the motor is switched off is inversely proportional to the current taken.

6. Setting of the end positions of the winding system's telescopic bar (canvas folding and unfolding) is carried out by means of the two stop switches available under the plastic caps of the drive unit's stainless prop.
By turning with the head of the stop switch screw clockwise or anticlockwise you can adjust the number of revolutions of the telescopic bar in the appropriate direction. Each of the end switches is used to control only one direction. The setting should only be done with the canvass customized to meet the purpose of your pool.

When the canvass is fully wound up on the winding system, the end switch must be set to turn off (reverse).
Should the canvass be extended over the water surface, the end switch must be set to turn off (reverse).
This is the responsibility of the end switches located under the plastic caps of the stainless prop.

(to add the Figure B)

Technical characteristics

Power supply:	230VAC/50 Hz
Motor startup power demand:	120W max.
Quiescent power demand:	10W max.
Covering protection class:	IP 55
Motor starts up, when it takes the current over	250 – 260 mA.
Motor stops, when it takes the current under	250 – 260 mA.
Motor supply voltage:	12 VDC

Motor overload turn-off point can be set within the range from 2 – 10 A
Motor protection: electronic fuse – can be set activated within 3 s
Motor equipped with the end switches, distinguishing the direction of motion
(using the internal diodes)
Reversing can be achieved by changing the polarity of the supply voltage
(using the internal diodes)

Canvas fastening

(see the existing instructions+ pictures

7. For better unfolding of the solar canvass over the water surface our recommendation is to add a floating edge to the canvass, which will facilitate the sliding of the canvass edge across the water surface.

(see the figure – edge)

Description of the parts

9cp drive unit prop
21 wood screws
52 distribution frame - electro
53 remote control key ring tag
54 cable bushing
55 blinding plug
56 electrical drive unit 12V
57 end position setting stick