



PRO EVO II

Electronic controller for Slot

FEATURES OF PRO EVO II CONTROLLER

- 100% electronic controller.
- Built-in microcontroller.
- Acceleration and brake control through PWM signals and Mosfet transistors.
- Possibility to use the controller on tracks with positive or negative connection (POS-NEG).
- Green operating testing LED.
- Track short circuit and overheating protection.
- Overvoltage protection.
- Protection against mistaken polarity changes when connecting plugs.
- 8V to 22V use range.
- Almost without electricity consumption.
- Flexible 1,5 m electric wire length.
- Plug connectors type in screen printed box.
- Magnetic trigger without rubbing and and maintenance.
- Brake adjustment through potentiometer 0 to 100.
- Extra brake at the end of the straight (ON activated / OFF disabled).
- Active brake acting in the deceleration (ON activated / OFF disabled).
- Sensitivity cornering adjustment through -DUAL- potentiometer from 50 to 0 and 50 to 100
- Traction control at 8% factory setting (ON activated / OFF disabled).
- Curves selector with 10 positions with comfortable use.
- 20 curves available and modifiable with the cornering / sensitivity selector.
- Trigger travel adjustment possibility at minimum (brake) and maximum point (acceleration), to adapt the trigger travel to your preferences.
- Simple and intuitive use of all controls.
- Upper potentiometers designed to right or left handed.
- 3D plastic trigger.
- DS case.
- Electric wire with rubber protector.
- Electrical circuit fixed with silicone to the case to avoid movements.
- Lightweight.
- Transport and protection suitcase.

-INTRODUCTION-

First, thank you so much for purchasing one of our products and for the trust you've placed.

The PRO EVO II controller represents a great step in the evolution of the PRO series controller with a very high quality/price ratio compared with much higher price controllers that, we are convinced, will make you feel fully satisfied.

Adjusting the trigger travel a little shorter than usual, just a little more, significantly improves the comfort of use and reduces fatigue in the joints of the hand and arm, and for this reason Sloting Plus bet, from the beginning, on offer all its clients the possibility of modifying the route and the position so that it adapts as much as possible to each user.

The result of this comfort is evident after a few minutes of use and this is the philosophy that we initiate in all our controls; "The controller is adapted to the driver and not the driver to the controller."

But we wanted to improve, keep moving forward, and we have questioned many of the previous concepts, applying new ideas and solutions which were born from these reflections and subsequent tests. In our case there is no longer a "power selector", this concept, this feature, belongs to the past.

The present, and we also believe the future, is the "cornering (car control through the curve)". This function is controlled by the yellow button and it is capable of managing the passage through any curve in an "almost" automatic and intuitive way because the electronics, with precise programming, are in charge of reading the trigger position one hundred times per second and tries to prepare for the pilot next move, by acceleration or deceleration.

We continue to maintain the concept of "curve" (going up the curve - going down the curve) because it is in the mind of all of us and it's easy to communicate, but actually, we process the voltage that reaches to the power unit from another way, aided by electronics and program feature settings. For this reason, there is a great qualitative and performance leap with our previous models.

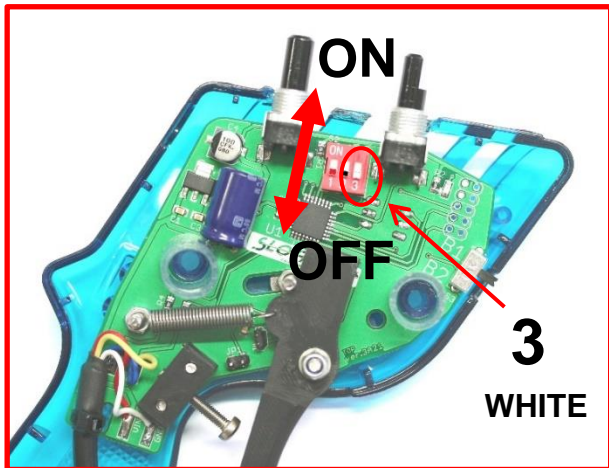
Concentrate on finding the "curve" to go through the curves with a light pressure of your finger on the trigger. Forget the brake, there is a brake to spare, forget about acceleration in a straight, it's all available. Forget about drawing the curve with your finger/trigger, feature settings and electronics do.

Just focus on pass the curves quickly and safely. The whole controller settings focuses on these principles; pressure-trigger / programming-electronics. Believe us; you will be as surprised as we are. Take some time to discover the potential controller you have acquired. Everything in it is very simple and easy to remember.

Read the instructions to know its potential and features, but for help you in the first use follow next settings: The three interior switches all down (OFF), exterior switch up (OFF), curve selector at 1, yellow button at 50, adjust the brake as you like, and start rolling on the track. Remember, press lightly the trigger when go to through the curve.

In just a few minutes you will get used to "cornering" and you will start driving in regular and safety mode. The fast lap is not the important thing here, it's constancy and regularity.

Subsequently, and once you have gotten into the habit and the security of riding in this new way, you will be able to enter the rest of the options. Thanks again for your trust.



SWITCH 3 -WHITE-

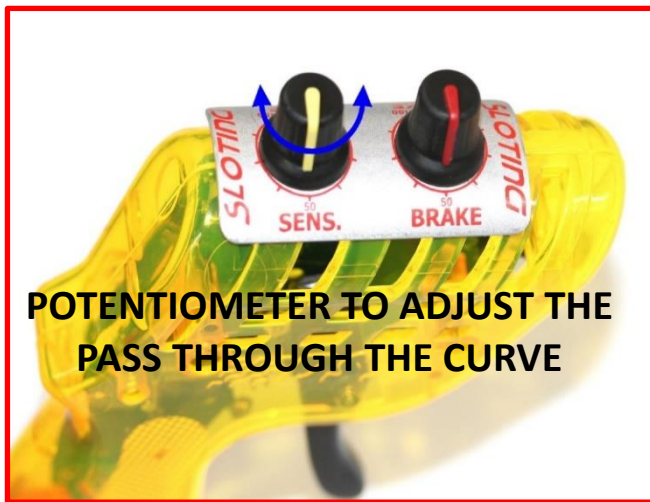


BANK OF THE CURVES

There are 20 curves available and selectable with switch -3- as indicated. Ten curves on bank 1 and ten more curves on bank 2.

BANK 1 -OFF- from the curve **1** to curve **0** (10)

BANK 2 -ON- from the curve **1** (11) to curve **0** (20)



The curves are upward in the cornering (from 1 to 20) and due to the diversity of motors and voltages existing, curves 1 to 13 are more suitable for 1/32 models and curves 14 to 20 will be more indicated for 1/24 or very heavy models.

It is very easy to find the adequate curve, you only need to select the one that, by gently pressing the trigger at it start' travel, allows you to trace any curve of the circuit without effort, and the car passes it quickly, in a stable and safe way, with control, first having the feeling, and afterwards the security, that you "will not be exceeded" with the trigger.

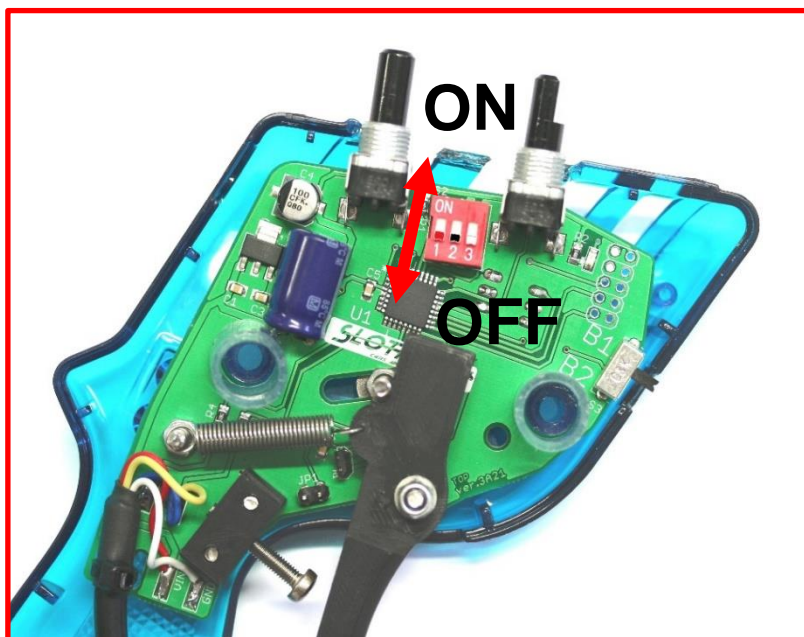
Start with bank 1, set the curve selector at 1, the yellow potentiometer at 50 and adjust the brake to your choice. Then go rolling and, if you need it, go up to 2, 3, 4 etc... until you find the curve where you roll comfortably.

REMEMBER: The most important thing to drive comfortably and fast is to go across the curves in a stable and safe way. This is the secret.

Once you drive with enough confident after some good curves, with the yellow potentiometer you can precisely regulate the cornering by smoothing or increasing it.

With the design of the curves and the evolved electronic, adaptation to tracks with high or low voltage is also solved by raising or lowering the curve. As simple as It sounds.

Our honest advice is that you should learn to ride this way, with the short trigger travel between 4 and 7 mm (It comes standard with approx. 5,5 mm of travel). We recommend that you change your mind, you will be surprised how simple it is and the enormous improvement in comfort, ease of handling and regularity of the times per lap. We have confirmed this.



SWITCH 1 -RED- ■

ACTIVE BRAKE

(ON activated - OFF deactivated)

SWITCH 2 -BLACK- ■

TRACTION CONTROL

(ON activated - OFF deactivated)

ACTIVE BRAKE (switch -1- red color) ■

The active brake is a braking system that acts whenever we decelerate, that is, it acts by braking whenever we drop the trigger, whatever position it is (this is its benefit), and without needing the trigger to reach the final position.

It is a very suitable system, if required, in high weight models whose inertia, speed and weight, if the transmission ratio does not help, are more difficult to control and/or brake entering on the curve.

At first "it's a bit odd" to release the trigger a little and the car is already braking without the trigger reaching its usual brake position. It has many advantages that you should experience.

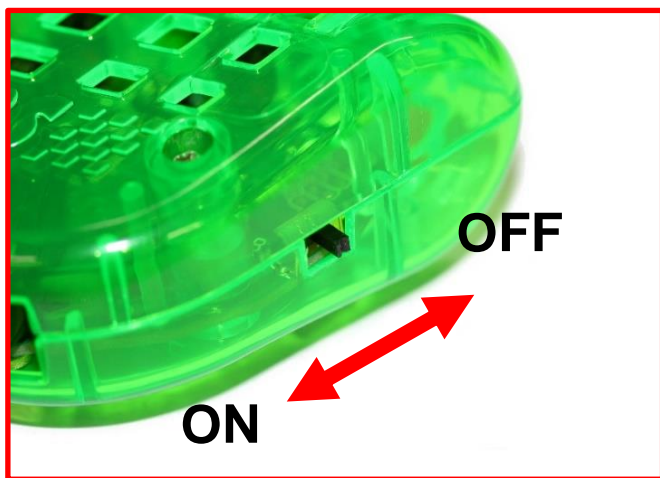
This braking system acts with the same brake intensity that we have selected with the red button for the rest of the track and is compatible, if desired, with the end-of-straight brake, that is, both brakes can be used without interfere with each other. This braking system is also switchable (ON/OFF).

TRACTION CONTROL (switch -2 black color) ■

Traction control, or time delay the trigger response on acceleration, is a function that delays, for a few milliseconds, the trigger response at the first actuation upon the trigger (acceleration). This delay is controlled to improve its response and make it little intrusive.

It's usually used on those times in which a motor shows excessive power delivery, on tracks with high voltages, with ratios that are not adequate to the characteristics of the motor, and also, in some cases, due to our anticipation, not sufficiently synchronized, when giving gas at the end of the curves.

This system smoothes the trigger response avoiding the rebound when accelerating the car, by excessively anticipating with the trigger, "lose the rear". It is set, approx. at 8% and this option is, obviously, switchable (ON/OFF).



EXTERIOR SWITCH

END OF STRAIGHT BRAKE

(ON activated - OFF deactivated)

The concept is very simple, logical, and tremendously effective. It is about having two brakes in one.

What is the basic idea for the correct development of this performance? The usual and logical thing is to adjust the braking power that we want in all the curves for the track, so that it allows us to attack the curve safely, not "kill" the car and go through the curve as quickly as possible.

But at the end of the main straight, or any other long straight on the circuit, when our car reaches the highest speed, and therefore its inertia is greater, it is necessary, in some cases, to have a greater amount of "extra" brake, otherwise it is necessary to anticipate braking a lot, losing efficiency and a few precious tenths.

The advantage of this performance, and for what it should be activated or not, is that in any case does it interfere with the brake setting for the rest of the curves, and on tracks with short straights we can continue using and setting the brake as usual. However, and if we have it "programmed", we can always use it with a single "click" from the outside. Obviously, if we have adjust the maximum brake for all the curves of the track, it is not necessary to activate this option.

It is known to all that in some engines, due to intensive use and the heat that they generate, lose their braking properties and here is where this performance can also help us.

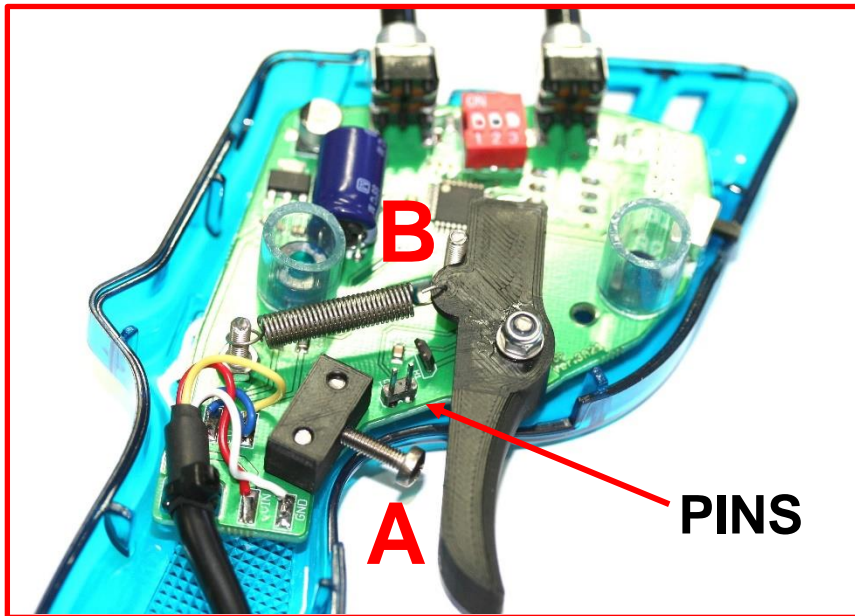
Obviously it is necessary to "record" the background time of the trigger so that the controller "recognize" when we are on a long straight or a short straight. Logical.

For this we have to adjust the brake potentiometer by turning up to 100 -1.5 sec.- or turning up to 0 -0.1 sec. Position 50 means approximately -0.6/7 sec. (approx. a six/seven meter straight) and logically, the setting depends on the length of the straight, the type of car and its speed.

HOW TO ACTIVATE IT:

- 1- With power on the track and, **-VERY IMPORTANT-** without any car in the lane, plug in the controller.
- 2- Place the outside curve selector in the position number **-2-**
- 3- Make a short circuit between the two pins behind the trigger with a metal screwdriver or similar until it goes off and on the LED lights (very fast 0.2 s). The LED remains on.
- 4- With the LED on -waiting for our adjustment- set the brake potentiometer at 50 (center approx. 0.6/7 seconds) or turn just our choice.
- 5- Then press the trigger to background (acceleration) so that the position that we will have adjusted with the brake potentiometer is confirmed and wait for the LED blinks 5 times.
- 6- Once the 5 blinks are finished, we release the trigger, unplug and plug in it again. Already it will be programmed.

Program again if necessary to 100 (longest straight / time) or towards 0 (shortest straight / time) and test the new setting on the track. Very easy



As we mentioned at the beginning, setting the travel, the position of the trigger and the tension of the spring is very important to be comfortable and to roll faster. From factory, controller trigger travel is approx. 5,5 mm, a position quite parallel to the handle, and it has a normal spring strain. If you feel comfortable, great, otherwise, you know you can modify it. For the correct operation of the sensor, the minimum travel is 3.5 mm. and the maximum 12 mm.

ATTENTION; With the shorter trigger travel, the response is very overwhelming.

HOW TO ADJUST THE TRIGGER:

With screw **-A-** you will regulate the maximum (acceleration) and with screw or turret **-B-** you will set the brake stop. Easy. Remember that each time the trigger travel is modified it is necessary to calibrate again so that the sensor “knows” the two reference trigger positions -acceleration and brake-.

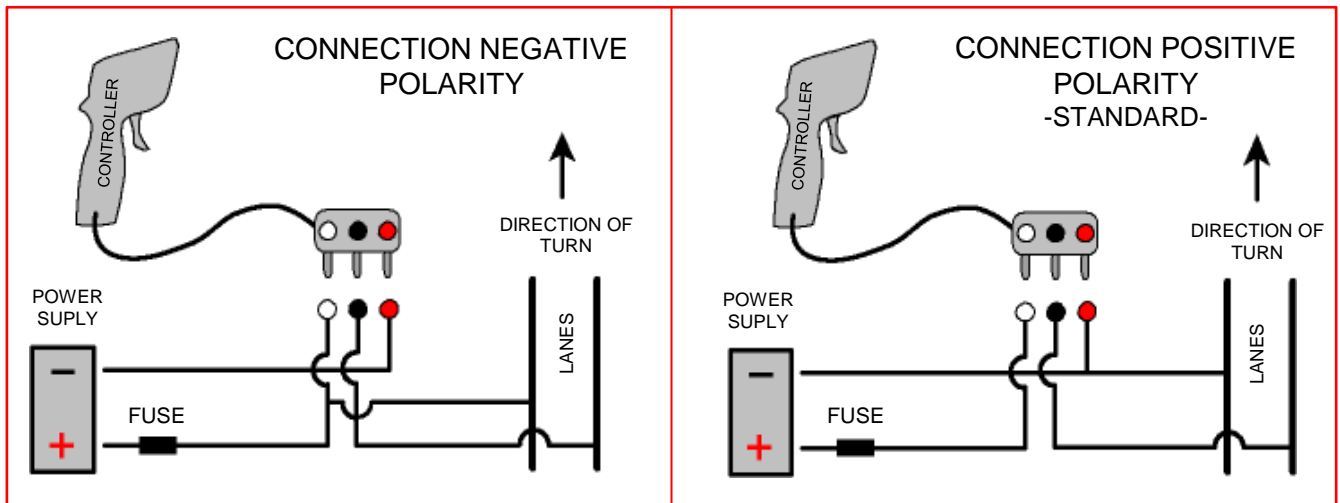
HOW TO DO IT:

- 1- With power on the track and, **-VERY IMPORTANT-** without any car in the lane, plug in the controller.
- 2- Place the curve selector in the position number -1-
- 3- Without move the trigger from its resting position, make a short circuit between the two pins behind the trigger with a metal screwdriver or similar until the LED turns off and on (0.2s very fast) and will stay on for two more seconds (the brake has already adjusted) and turn off.
- 4- Once switched off, press the trigger to background (acceleration) and wait for the five led flashes. When they turn off, the trigger can be released and then unplugged.
- 4- Plug in again the controller and the new position of the trigger is already programmed.

REMEMBER:

Every time you open the controller to adjust the trigger, you must make sure, before closing it, that everything is in place and the wire is in the factory position.

CONNECTIONS



VERY IMPORTANT

Before connecting the controller to the track, make sure that the polarity of the track corresponds to that of the controller (positive polarity)

If you want to change the direction of rotation for the car on the track, you **ONLY** have to change the connections on the track rails. **NEVER** on the Power Supply because the electronic controllers may suffer irreparable damage.

The controller you have in your hands is the only controller that allows, at no additional cost of any kind, to have the polarity change safely and easily. So, if someday you need to ride on a track with different polarity, you can do it very easily with the consequent advantages.

If for some reason the polarity change has not been carried out correctly, when putting a car on the track, it will fly off. Repeat the process again.

HOW DO THE CHANGE:

- 1- With power on the track and, **-VERY IMPORTANT-** without any car in the lane, plug in the controller.
- 2- Place the outer curve selector in the position number **-3-**
- 3- Make a short circuit between the two pins behind the trigger with a metal screwdriver or similar until it goes off and on the LED lights (very fast 0.2 seconds) and the led remains on.
- 4- With the led on -waiting for our action- press the trigger to background (acceleration) for than 10 seconds and wait for the LED blinks 5 times. When they turn off, the trigger can be released and then unplugged.
- 5- Plug in the controller again and it is ready for the selected polarity.

If the polarity change has not been done correctly, when putting a car on the track, it will fly off. Don't worry, the controller has been designed to be save and the brake potentiometer will act as the trigger and the trigger will act as the brake.

Carry out the operation again and you're done.

MAINTENANCE MANUAL AND RESOLUTION OFF POSSIBLE PROBLEMS

Although this controller is protected against various mishaps that may occur, it's possible that in some unit, some undetected faulty welding or some electronic component that, for some unknown reason, has stopped working, the controller will not work correctly. Don't worry, the controller has a guarantee and you must contact your dealer for review or subsequent repair.

The poor connection with the female plug in the box connection of the track, is one of the most common causes of failures since it is the part that, logically, undergoes the most continuous and intensive use. Also, in some cases, the problem is in the car or on the track itself.

These basic and effective tests forms are the most common to detect if the failure are in the controller, the car or the track.

If the controller or the car does not work.

- Check with another car that you know it works properly.
- Plug in the controller into another lane and with the same car.
- Plug in the controller into another lane with another car that you know it works properly.
- Plug in another controller in the same lane with the same car.
- Plug in another controller in the same lane with another car that you know it works properly.
- Plug in another controller in another lane with the same car.
- Plug in another controller in another lane with another car that you know it works properly.

These steps described above are very reliable to detecting what is not working properly.

When the controller LED is off, the controller isn't receiving power from the plug box and the most common cause is a defective connection with the tracks junction box.

Solution / check:

Perform the "test" described above to rule out the responsible and, if the problem is the controller, move his connection base to detect where is the poor connection, and check what of the three contacts from connection box are defective. The LED turns on/off.

Internal breakage of the wire is also possible due to the continuous movement to which it is subjected. Check by moving the cable along its entire length and if the problem is this, you must replace the four-wire cable.

The led is on, but the controller does not respond, or it responds with impulses and the car stops and accelerates arbitrarily or does not move.

Solution / check:

Perform the "test" described above to rule out those responsible. Check that the curve selector is properly positioned and not "between the numbers" and calibrate the trigger.

The trigger, the brake stop and the maximum, are the parts that suffer the most from our controller and, although we have oversized these two pieces to be resistant and last a long time, they can also break. But what can happen on occasion is that, due to the logic of wear over time or because we have removed it, the magnetic sensor "loses" its reference with the trigger (rest / brake position - maximum stop / acceleration).

MAINTENANCE MANUAL AND RESOLUTION OFF POSSIBLE PROBLEMS

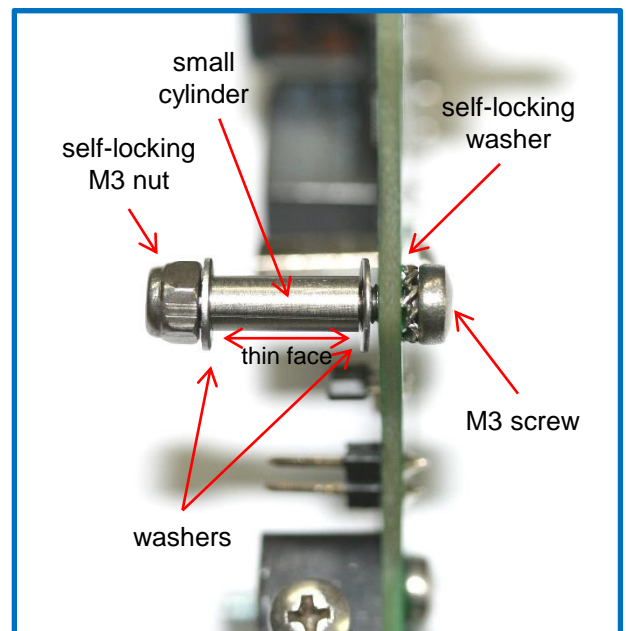
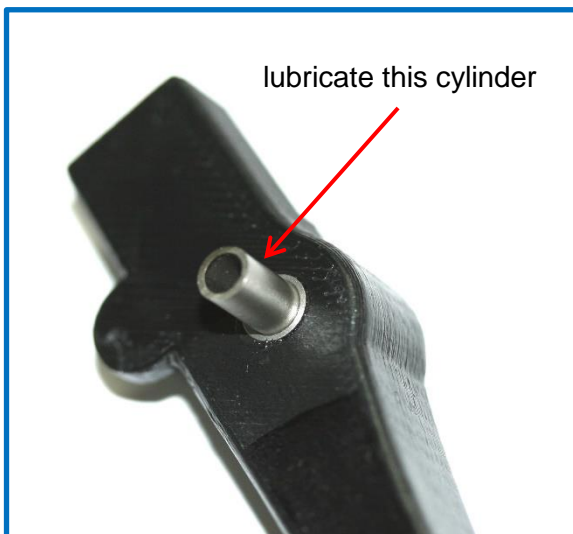
Do not bend the electric cable excessively to avoid tension inside it and never pull it. Roll it up in three or four turns.

Finally, if the controller gets wet or liquid is spilled on it, DO NOT connect it to the track for 12 hours. Open the housing and remove the spilled liquid preferably with pressurized air and at a distance of 50 cm. NEVER dry or rub with a cloth or paper, or applying heat.

MAINTENANCE:

The controller does not require any general maintenance, just take care of him and, obviously, avoid shocks, keep it away from water, dust, heat sources etc... and, once a year, lubricate the trigger. Although the trigger is lubricated from the factory, this lubrication is not "for life" and is the only job you will need to do.

To lubricate the steel cylinder that acts as a pivoting axle in the movement of the trigger, it's only necessary to separate the spring, remove the self-locking M3 nut, the washer, lift the trigger and lubricate the outside of the small cylinder. Mount in the same order (the washers with the "thin" face parallel), without overtightening the M3 self-locking nut, and that's it. As simple as that.





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