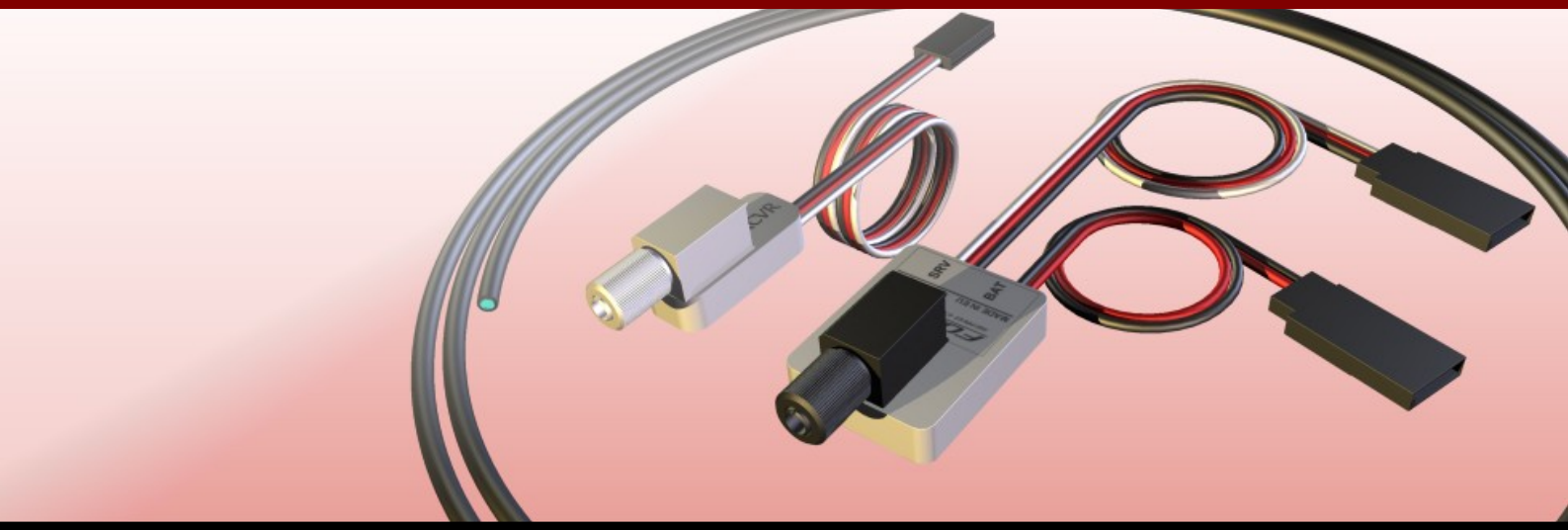
FORCE Servo Controller



FORCE Servo Controller

General information

SAFETY

...

FIRST!

SETLO

www.setlo.com

Applications

Main task of FORCE Servo Controller is a possibility to place throttle servo close to the engine, so the throttle control link is short.

Typically disadvantage of such installation is small servo distance and its wires from the engine ignition unit.

Taking into account the adverse impact of electromagnetic noise caused by the ignition, which could get to the RC circuit, controller communicates with the receiver exclusively by fibre-optic which is resistant to electromagnetic disruptions.

Thanks to that there is a minimum 30 cm distance between the ignition and the RC circuit in the model.

In this case throttle servo is powered by the same battery as the ignition unit.

Fibre-optic servo controller can be used also for other purposes than controlling the throttle. It will work everywhere where long wires are adversely affecting the electronics operation.

With its help it is possible to control the servo move being in a significant distance or everywhere where a galvanic isolation of implementation servo elements from steering electronics is required.

With the FORCE Ignition Cutoff. FORCE Servo Controller is a complete engine control system resistant to interference induced in long electrical wires.

Fiber Optic used in the system is very flexible. Its minimum bend radius is now about 7.0 mm. Wire diameter is very small 2.2 mm, as well as its mass which is only 3.7 g / m.

Installation

FORCE Servo controller correctly works with voltage range from 3.6 V on the RC receiver side, and 3.6 V on the servo power supply side. Maximum allowed supply voltage on both sides is 16.0 V. It is necessary to remember not to exceed the allowed servo voltage, and if necessary to use appropriate voltage regulator.

FORCE Servo controller consists of the fibre-optic transmitter module plugged in the RC receiver and powered directly from it. Fibre-optic receiver module powered from the ignition battery. Fibre-optic wire*. For correct operation the device requires separate channel from the receiver (in most cases CH3).

During run it is necessary to carry out the calibration of channel in which the FORCE servo controller is plugged, analogy like during the regulation of servomechanism end points. Similarly as in case of standard connected servo, the FORCE device also passes to servomechanism the Fail-Safe position.

NOTE!!!

Remember that application of security FORCE type doesn't justify the implementation of careless electrical installation.

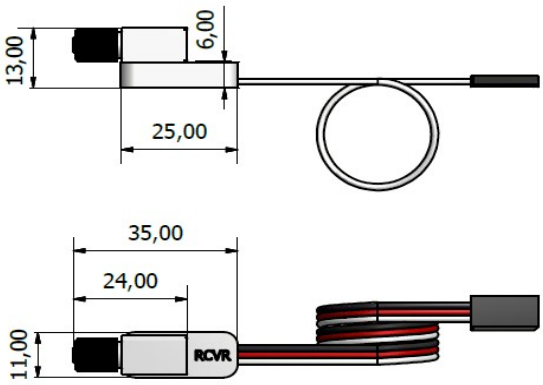
All wires and connections should be carefully made and appropriately secured.

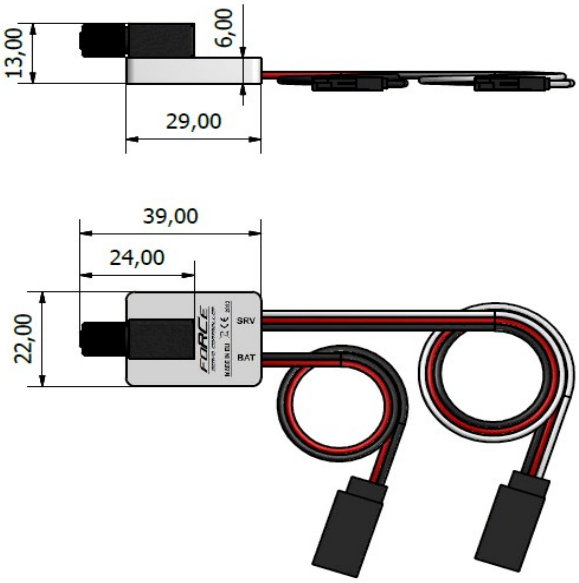
Additional the safety increase is a task of FORCE controller during practicing this hobby, rather than avoiding or eliminating errors of the assembly other elements.

FORCE
SERVO CONTROLLER

Fiber Optic Radio Control Equipment

Technical data





Fiber Optic transmitter
- dimensions: 35mm x 11mm x 13mm
- RX plug: Futaba, female 300mm
- zasilanie: 3,6V – 13,0V
  2 - 3 x (LiPo/Li-Ion/LiFe)
  4 - 9 x (NiMh/NiCd)
- weight: ~ 10,0 gram

Fiber Optic receiver with servo controller
- dimensions: 39mm x 21mm x 13 mm
- power supply plug: Futaba / JR male, 150mm
- servo plug: Futaba / JR malei, 150mm
- power supply: 3,6V – 13,0V
  2 - 3 x (LiPo/Li-Ion/LiFe)
  4 - 9 x (NiMh/NiCd)
- weight: ~ 15,0 gram
- current capacity: contstant 5A, temporarily 30A

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