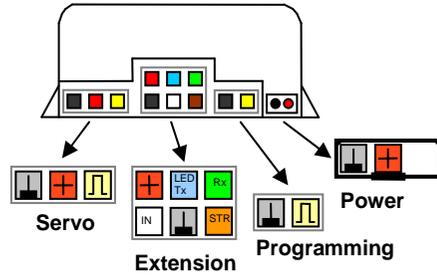


# Installation and power up ICU-PS ver. 3.1

## Package content:

- ignition,
- LED,
- programming cable,
- regulator cable,
- regulator,
- manual.



## Connectors from left to right:

- servo connector,
- extension connector for LED and serial communication,
- programming connector,
- power connector.

If you need more information about serial port, please contact manufacturer.

## Basic features:

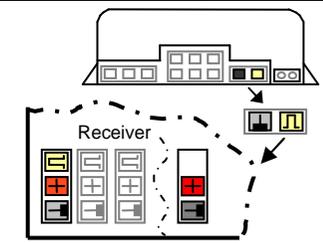
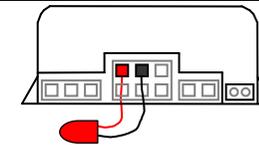
- automatic choke valve control,
- two preprogrammed preignition curves for ("short" and "long" silencer),
- one programmable preignition curve,
- with or without battery test (for Li-Ion or Li-Pol battery),
- battery level signalization (it will not work if battery voltage is lower than 9.5 and battery test feature is enabled),
- ignition goes off if engine runs counter clockwise.

## Important:

If you don't want to control choke manually or switch on battery test do first step and then go to next page, otherwise follow next two steps.

## 1<sup>th</sup> step:

- screw on pickup on engine,
- attach the plastic protection to the high voltage cable,
- connect boot to plug,
- mount ring tongue terminal on the cable from boot (ring faston) under a nut holding the engine to the motor mount,
- fasten ignition to airplane.



## 2<sup>nd</sup> step:

- connect enclosed LED to the ignition (red or red/black wire to left).

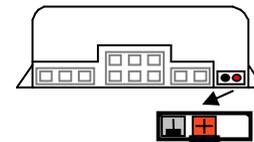
## 3<sup>rd</sup> step:

- keep clear of the propeller,
- connect battery with the ignition box.



## 5<sup>th</sup> step – without battery test

- connect battery to receiver,
- switch on transmitter,
- set starter channel less than 1.3 ms.



## For active battery test

after power up, battery test is done and LED is on. LED starts blinking if battery voltage is low. Charge battery, otherwise set starter channel below 1.3 ms and LED turns off.

## Start:

- On chosen receiver channel (starter channel) set PWM more than 1.7 ms. (full deviation)
- starter starts and after engine-idling is switched off.

## 4<sup>th</sup> step:

- connect regulator to the ignition (red or orange on the left)

## 5<sup>th</sup> step – with battery test

- connect battery to receiver,
- switch on transmitter,
- set starter channel more than 1.7 ms.

## 6<sup>th</sup> step

- keep clear of the propeller,
- power up ignition.

## 7<sup>th</sup> step

- power up regulator.

## Stop:

- On chosen receiver channel (starter channel) set PWM less than 1.3 ms. (minimal deviation),
- Ignition stops generating spark.

# Programming choke valve for easy start function

# ICU-PS ver. 3.1

## Enabling or disabling battery test

Ignition makes enable or disable a battery test possible. Battery test is very useful when Li-Pol or Li-Ion battery are used. During the test series of flashes are generated and voltage is measured. When test passed correctly, battery has energy for minimal 10 minutes of flight.

**Enabling or disabling battery test is done through the chosen receiver channel always before ignition power up.**

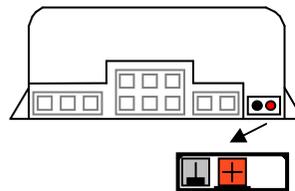
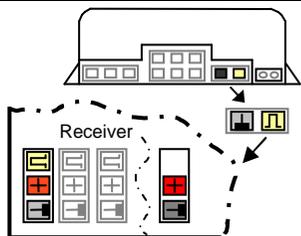
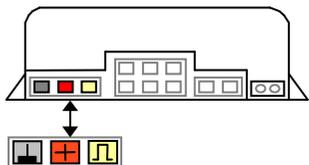
- battery test is enabled (if PWM of chosen channel is greater than 1.7 ms.)
- battery test is disabled (if PWM of chosen channel is less than 1.3 ms.)

**After successful battery test set PWM of chosen channel below 1.3 ms.**

## Programming sequence:

Ignition needs to learn both positions of choke and type of silencer.

- firstly prepare ignition for programming (plug servo, plug programming cable to receiver, power up receiver, power up transmitter, power up ignition,
- secondly set close position of choke,
- thirdly set open position of choke,
- fourthly chose type of silencer,
- finally power off ignition, unplug programming cable and return throttle servo to receiver.



## Fourth step:

- wait approx. 10 sec until ignition starts beeping.
- by throttle stick set position of choke valve.

## First step:

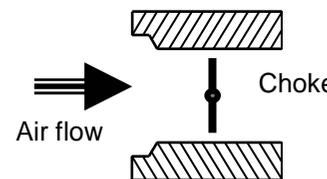
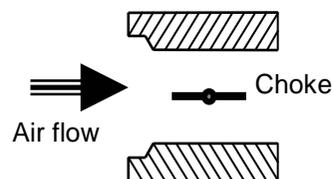
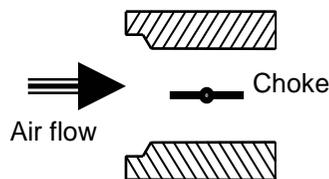
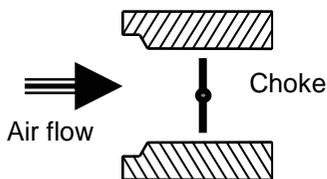
- connect servo to servo connector (LED was connected in step 2 from previous page).

## Second step:

- connect ignition to receiver (throttle channel) with enclosed cable,
- connect battery to receiver,
- switch on transmitter,
- set throttle to the center (1.5 ms)

## Third step:

- keep clear of the propeller,
- power up ignition.



## Fifth step:

- move throttle stick until choke valve is completely closed,
- after approx. 5 sec without move, choke will move its position to the center (PWM 1.5 ms) and after while it will return back.

## Sixth step:

- move throttle stick until choke valve is completely open,
- after approx. 5 sec without move, choke will move its position to close and after while it will return back to open position.

## Seventh step: Short silencer setup

- don't move (at least 5 sec) the throttle stick (choke valve will still stay in open position), the preignition curve for a short silencer is automatically installed, LED is blinking in short intervals.

## Seventh step: Long silencer setup

- move the choke valve in closed position and wait at least 5 sec. Preignition curve for a long silencer is installed, LED is blinking in long intervals.