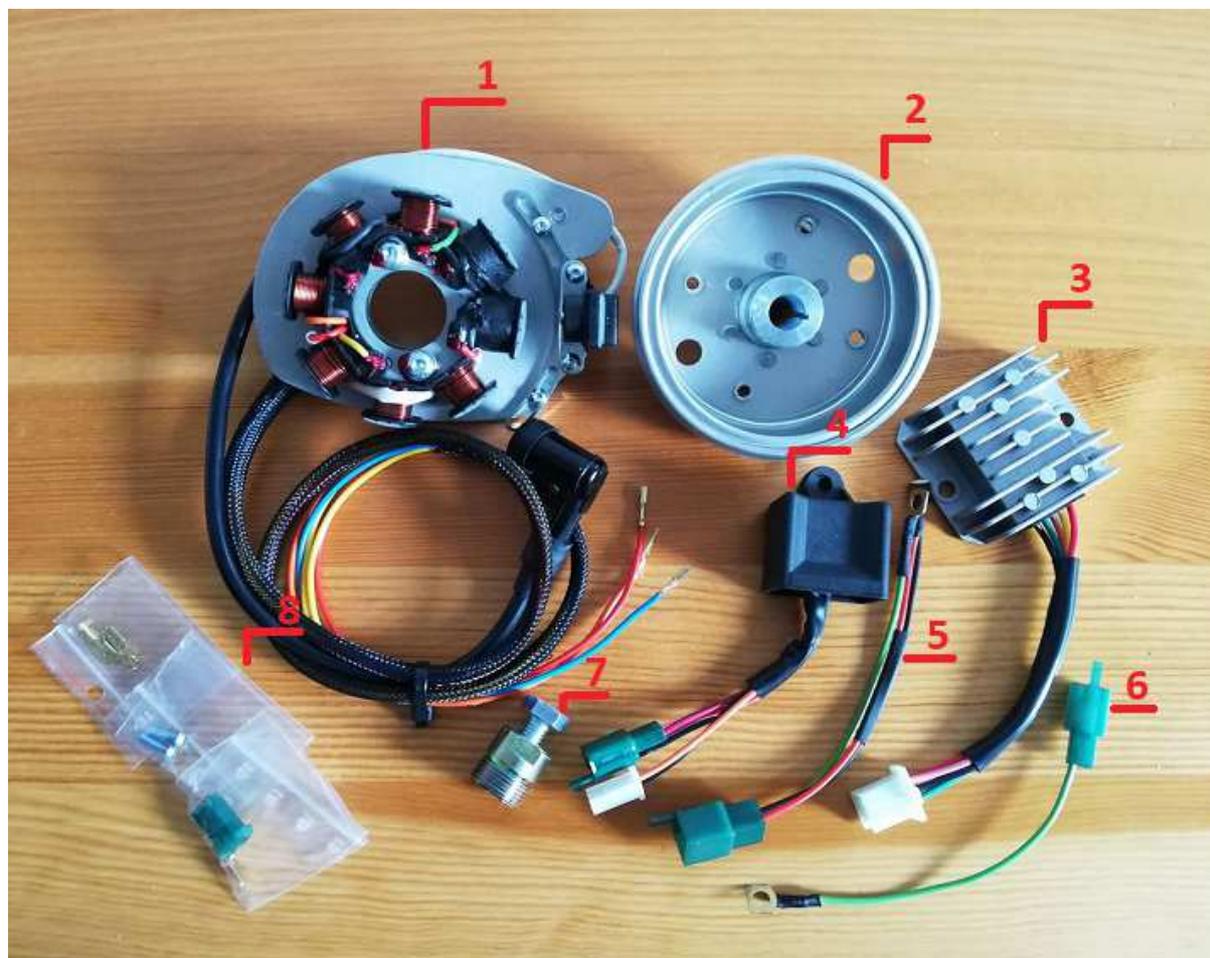


## Assembly and use manual for GEMO D08 contactless ignition for the STADION moped :

- Stadion S11
- Stadion S22
- Stadion S23

### I. List of elements



1. Base with stator, pulser, high voltage coil, and cable bundle.
2. Magnet wheel.
3. Voltage regulator.
4. Ignition module.
5. Cable bundle for voltage regulator.
6. Cable bundle for ignition module.
7. Magnet wheel puller.
8. Base bolts, connectors, and connection terminal.

### II. Preparation to assembly

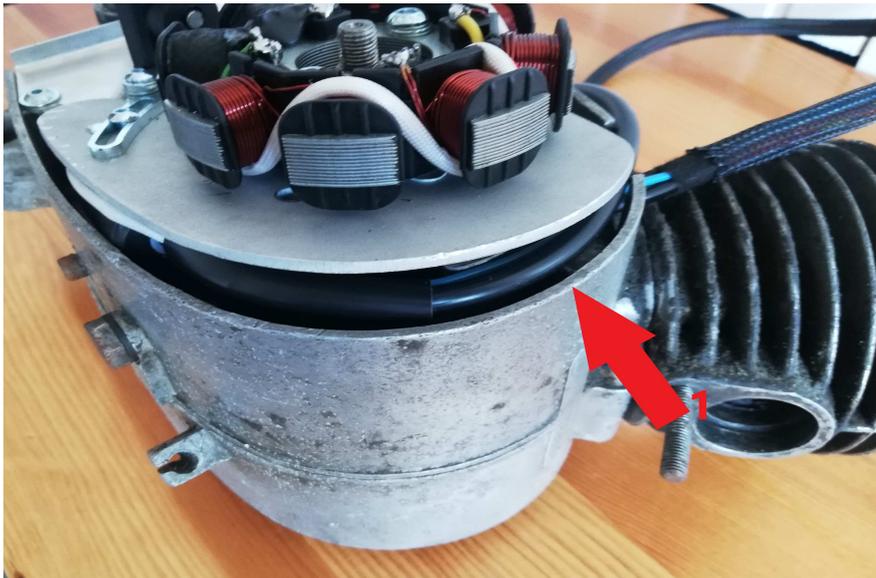
1. Place the vehicle on central legs.
2. Disassemble:

- lights (**necessity to replace with 12v counterparts**)
- original magnet wheel and stator along with cables
- 3. **Remove** rust, grease, and other contaminants from the crankshaft end.
- 4. Clean the whole ignition chamber from contaminants.
- 5. Mount magnet wheel **wedge**.

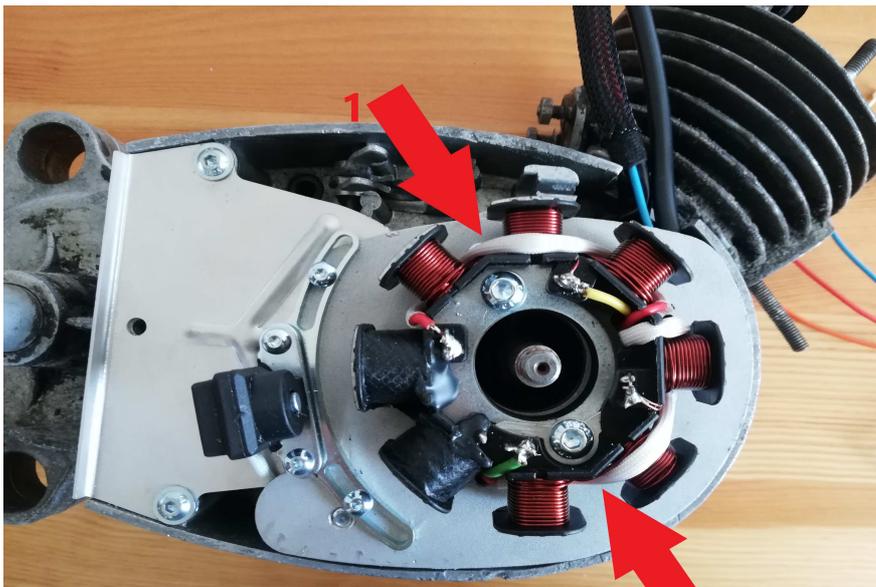
### III. Assembly

1. Mount the new ignition system in the place of original one:  
Adjust the base with stator in such a way that **no** cable and high voltage coil are pressed:

**The place of leading the high voltage cable with blue cable (next to the external wall of crankcase)**



**Places (openings) used to screw the ignition.**

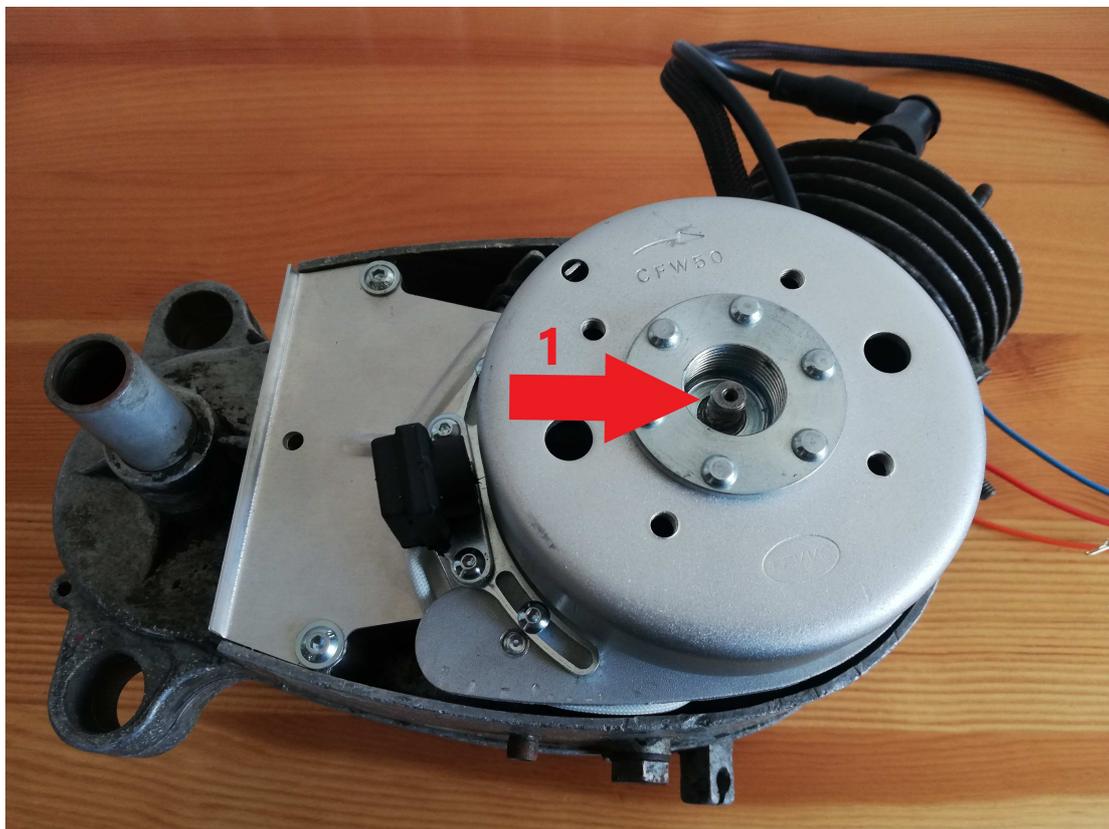


After correctly setting the cables, screw the base using the **m4 (x2)** bolts with head for Allen wrench (wrench size: 2,5mm):

**CAUTION:** Cables pass through the same places as in the original ignition system.

**Embed** and **screw** (nut and lock washer) the magnet wheel :

**REMEMBER ABOUT THE LOCK WASHER AND NUT**



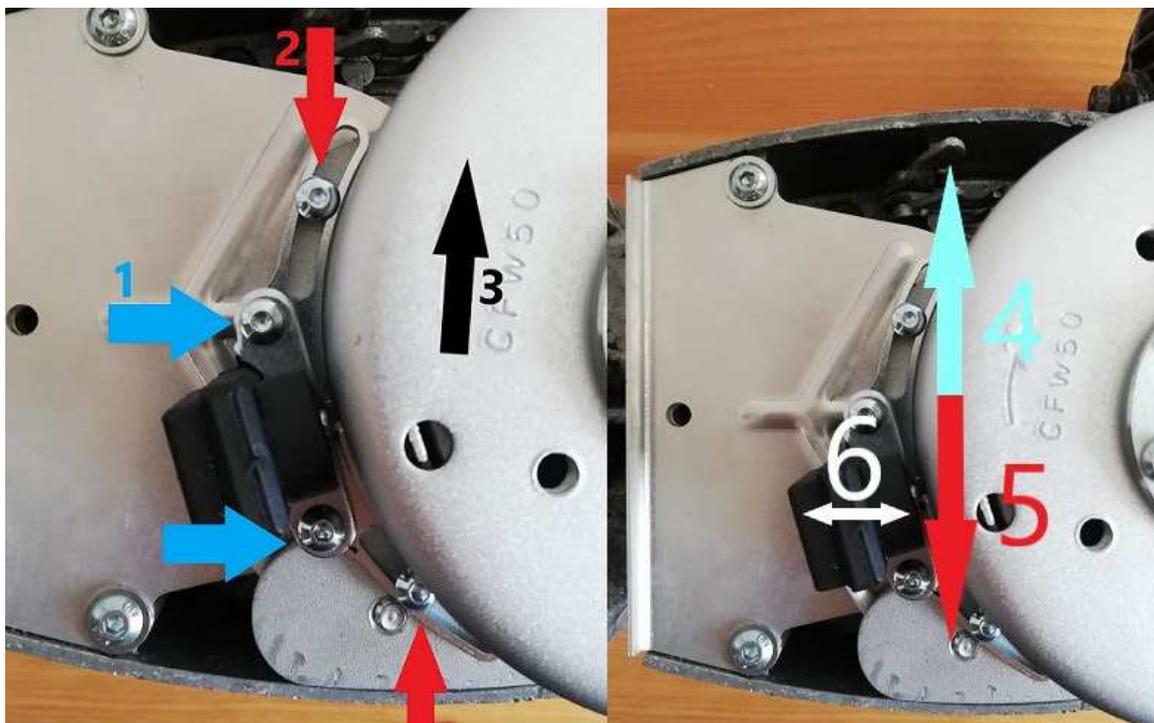
**CAUTION:** When embedding the magnet wheel, pay attention to the location of groove in the hub in relation to the wedge in the crankshaft end as they **MUST BE** located in one line!

#### IV. Setting the ignition angle and distance

The GEMO D08 contactless ignition requires only one setting. The correct performance of this activity guarantees the correct operation of the system and long and maintenance-free operation.

- set the correct (desired) angle of ignition timing
- loosen the timing adjustment screws (see photo below)
- move the pulser left/right to cause the magnet wheel marker to “ride” in the middle point on the pulser (see photo below).

Loosen the distance adjustment screws while avoiding the change of their positions and move the pulser centre to/from the magnet wheel marker so that the distance between them will have approx. 0.3mm; the gap between should be thick as “two sheets of paper”.



- 1 - DISTANCE ADJUSTMENT SCREWS
- 2 - TIMING ADJUSTMENT SCREWS
- 3 - ENGINE ROTATION DIRECTION
- 4 - IGNITION ADJUSTMENT (DELAY)
- 5 - IGNITION ADJUSTMENT (ACCELERATION)
- 6 - DISTANCE (ADJUSTABLE BY MOVING TO AND FROM THE MAGNET WHEEL MARKER)

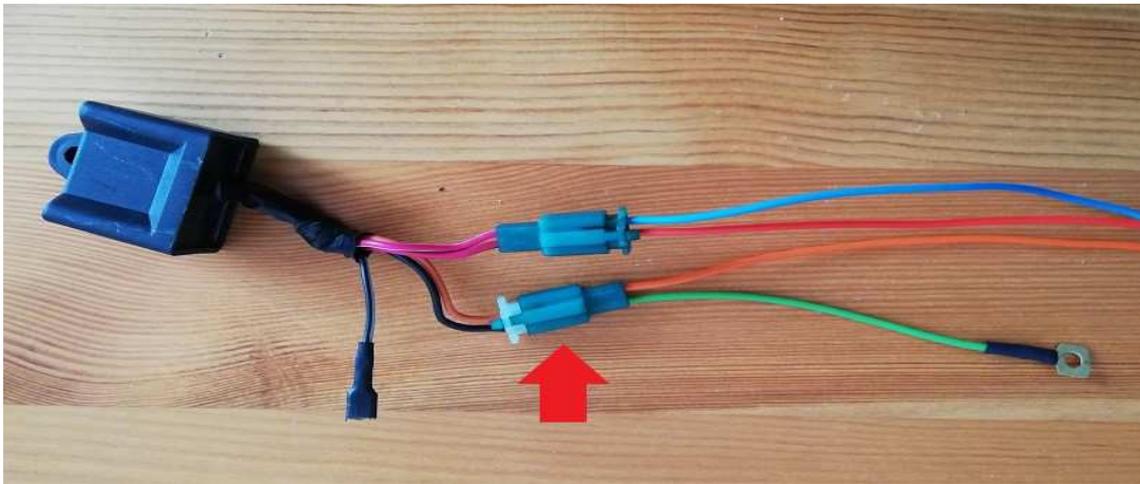
After all values are set, tighten the pulser screws and check whether any element was moved.  
 After performing all of the activities described above, close and tighten the right side of engine.

## V

### Assembly of ignition module and voltage regulator.

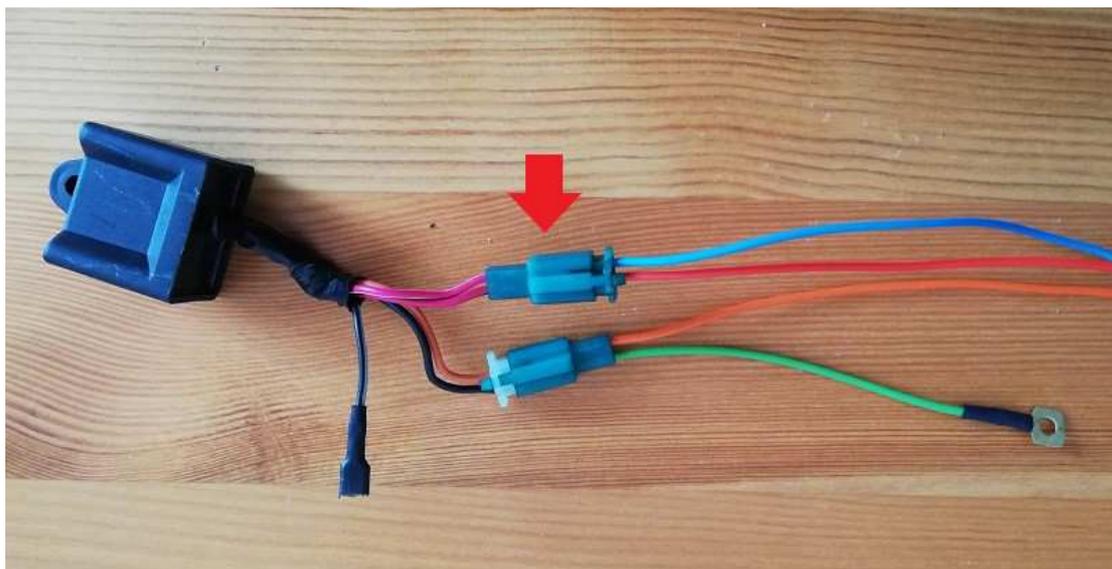
1. Use the ignition module cable bundle to connect the earth and high voltage coil:
  - in a free pin position in the cable bundle put (push the connector with cable inside the terminal until you hear a characteristic "click") connector with orange cable (from engine)
  - connect the module cable bundle to the connection terminal in such a way to acquire the following connections:

MODULE	ENGINE/FRAME
BLACK	GREEN (mesh to earth/frame)
ORANGE	ORANGE (engine)



- using a 2-pin connection terminal from the set:
- connect the red and blue cables exiting from the engine to the ignition module in such a way to acquire the following connections:

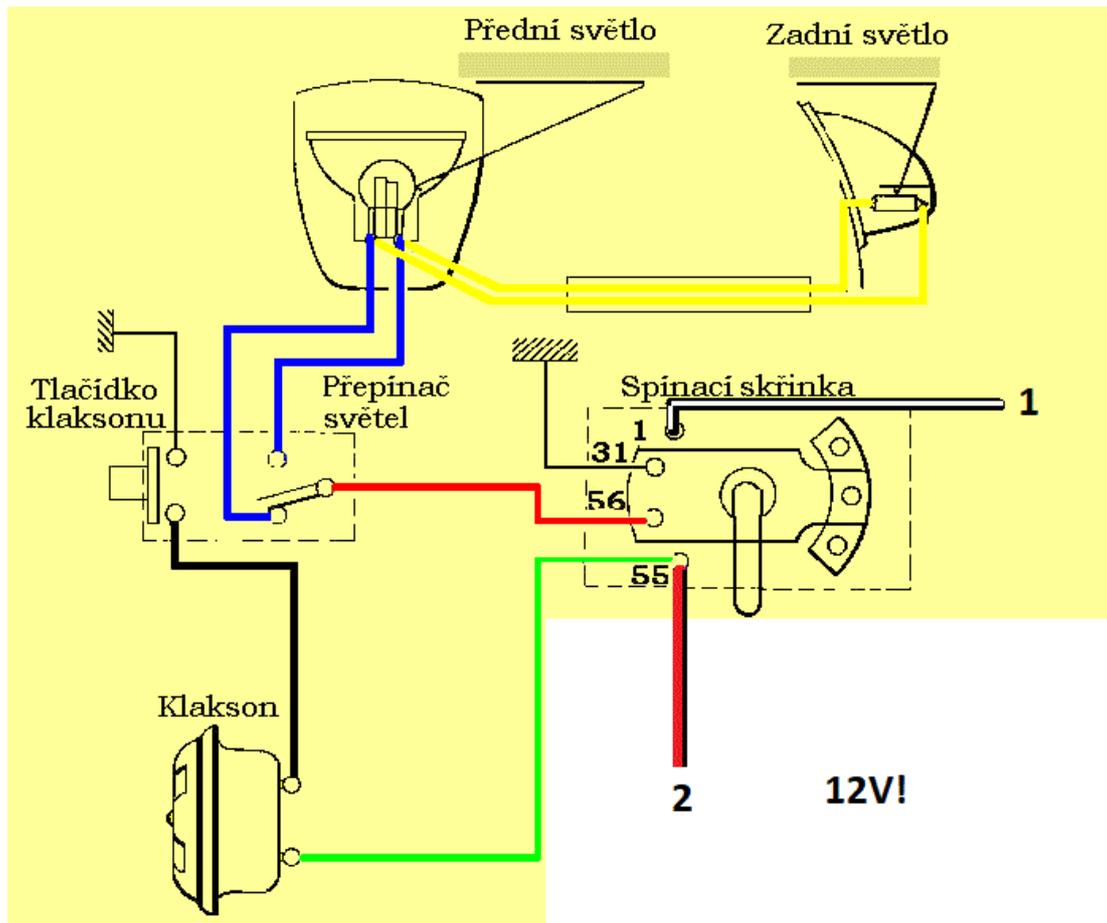
MODULE	ENGINE
RED-WHITE	BLUE
RED-BLACK	RED



**CAUTION:**

The **BLACK-WHITE** cable from the module is responsible for the shut off/start of the engine.

The shut off is performed by making a short circuit with the earth (frame) of the vehicle. In order to acquire a start/stop of the engine at the correct moment, connect the cable in such a way that the module will be earthed in the stop position of the engine:



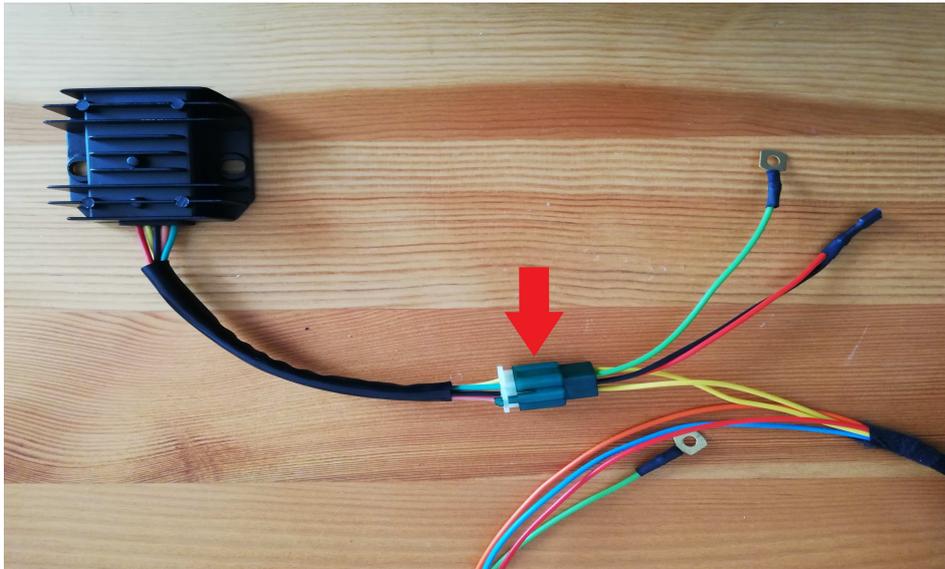
**1. BLACK-WHITE FROM MODULE.**

**EARTH = ENGINE STOP  
NO EARTH = ENGINE START**

Use the voltage regulator cable bundle to connect:

- in a pin position in the cable bundle put (push the connector with cable inside the terminal until you hear a characteristic “click”) the voltage regulator bundle and connect it to the voltage regulator to acquire the following connections:

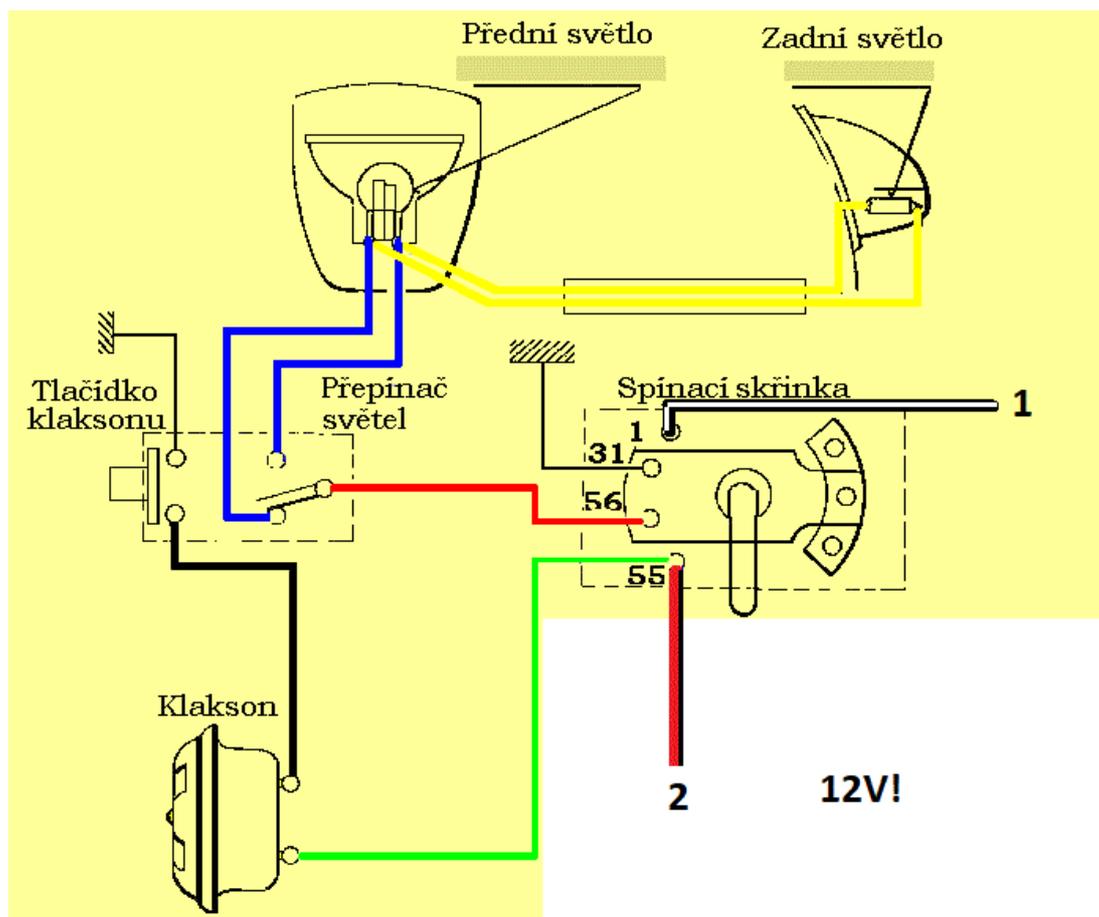
ENGINE/INSTALLATION	VOLTAGE REGULATOR
YELLOW	YELLOW
YELLOW	PINK
CAUTION: The order of yellow cables from the engine is arbitrary	
GREEN (mesh to earth/frame)	GREEN
BLACK+RED (together) (charging/lights)	BLACK RED



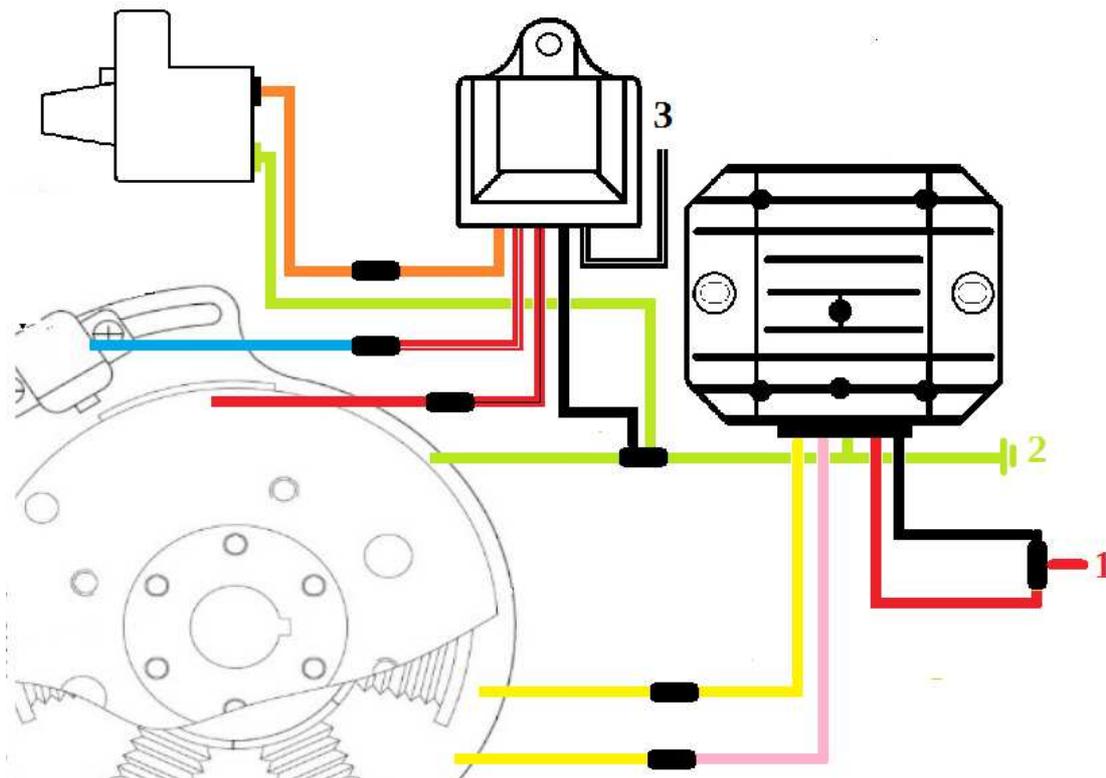
**CAUTION:**

Wires **BLACK+RED (together)** are responsible for the current of electrical receivers. It should be connected to the key-operated selector in order to power the lights and other electrical components of the vehicle.

**2. RED+BLACK FROM THE REGULATOR**



**INTERNAL DIAGRAM OF SYSTEM CONNECTIONS:**



1. +12v (charging, lights, horn, and stop)
2. EARTH (to frame)
3. Turning off (by short circuit with earth)