



MISFIRE PREVENTION ROTAX 125 evo engine series

Battery Maintenance

Maintenance is a determining factor for the life span of the battery.



- Keep the battery fully charged.
- Charge the battery especially during winter storage.
- Use a suitable charging device. Rotax recommends:
 - Part number **265148** for AGM and
 - Part number **581325** for Li-Ion batteries.Available at your ROTAX Dealer.
- We recommend to charge the battery after every race.
- After 2-3 years the battery should be tested for capacity. If the battery shows a significant loss in capacity please replace it.

Ignition System

The following tips will increase robustness against misfire.



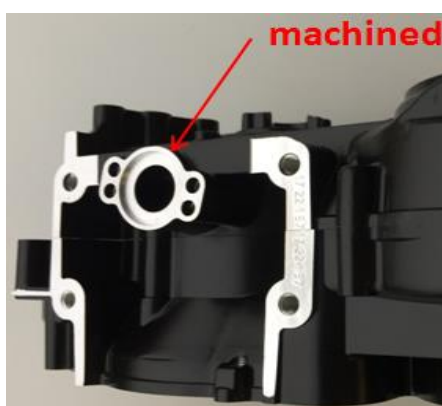
- Keep the spark plug and spark plug cap clean to avoid any external arcing! ([Video available, link on the next page](#))
- Use a tie wrap and attach the ignition cable to the cooling water hose to reduce wear of spark plug and spark plug cap.
- Use only genuine ROTAX NGK spark plugs:
 - Part number **298102** for MICRO / MINI
 - Part number **298103** for JUNIOR / MAX / DD2Available at your ROTAX Dealer.
- To increase the resistance against misfiring we recommend to use the red NGK spark plug cap **866707**. Available at your ROTAX Dealer.



- Make sure not to exceed the maximum allowed spark plug gap:
 - JUNIOR / MAX / DD2 gap must be < 1mm
 - MICRO / MINI gap must be < 1,2mm
- Please find the **2018 Rotax Max Challenge Regulations on our website:**
<https://www.rotax-kart.com/de/Max-Challenge/MAX-Challenge/Regulations/Regulations-2018>
- Please find the **spark plug video here:**
<https://www.rotax-kart.com/de/Community/Videos/Rotax-125-MAX-evo-Engines/141-ROTAX->

Crankshaft Positioning Sensor

The right of gaskets at the CPS socket grants a smooth run of the engine.



INSTALL gaskets “431500” on crank cases:

- 684234 DD2 and
- 295914 MICRO / MINI / JUNIOR / MAX

This crank cases have a **non-machined CPS seat.**

You can fit up to two gaskets without any negative impact.

DO NOT INSTALL gaskets “431500” on crank cases

- 684235 DD2 and
- 295915 MICRO / MINI / JUNIOR / MAX

This crank cases have a **machined CPS seat.**

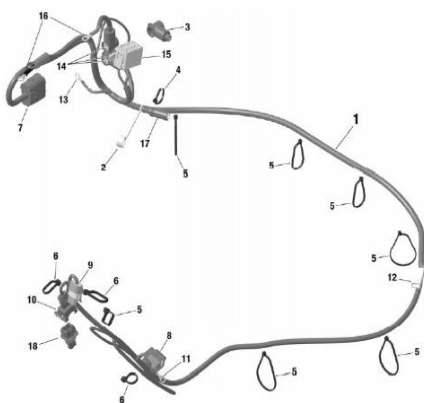
If you fit gaskets here, the engine may not start or have misfire.

IMPORTANT

- If you install too many gaskets the engine may not start.
- Installing the right amount of gaskets will grant a smooth run of the engine.

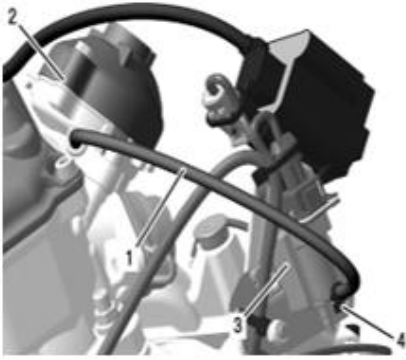
Wiring Harness

The correct installation of the wiring harness plays an important role:



- Check with the Rotax “Installation and Operators Manual”.
- Please find the manuals for all engines on our website:
<https://www.rotax-kart.com/de/Products/MAX-Engines>
- Follow the installation Manual by applying the tie wraps.
- To prevent wire breakage please fix the cables coming out of the ignition coil and solenoid valve shortly after the connector with a cable tie to reduce movement and vibration.
- Make sure the cables are properly fixed to the chassis or seat and are not bent directly after the connector!





- If you are not racing a DD2 engine make sure that the shift contact is properly isolated.
It will cut the ignition every time it has contact.
- Make sure that the rubber cap is covering the charging socket for the battery charging device.
- Please remove any grease out of the counter-connector of the starter switch.
- Silicone content of the grease can harm the internal contact of the starter switch.

In General, make sure to never pull directly on the cables when disconnecting them. Grip the connector and plug to prevent mechanical stress on the cables – as this may damage the cables and lead to a misfire. If you have any doubt that the harness is not OK, you can make a quick and easy check with the wiring harness tester “276231”.



All Rotax genuine spare parts or devices mentioned in this issue of the TECH TIPS are available at your Rotax dealer.

If you have any questions or concerns – please ask your Rotax dealer. They will be happy to help you in any case.

Kind regards,

Your Rotax Team

