Rotax 912, 914 "Soft start by Ignitech" explanation.

Standard original system start at 4° BTDC (pickup at end of lobe) and jump to 26° BTDC (pickup at begin of lobe) at 600-800 RPM. Original system with additional "soft start" system start also at 4°, but it keep this starting advance 10 s regardless of engine speed. Original system with new rotor start at 3° ATDC (pickup at end of lobe). See old and new rotor on photo below. See also this video: https://www.youtube.com/watch?v=OWY_j3-hHcM

Our system is different. It not only "jump" from 4° to 26°, but is increase advance smoothly according advance curve preselected in setting software. Next function for better start is value "Lower advance by start %" in software. This function will delay advance according value. When value will be 0 - it will not delay advance. If value will be 100 - it will delay advance with angle of pulse lobe. If value will be 50 - it will delay advance with angle half of pulse lobe. Standardly we use value 20. Pulse lobe angle is 26°-4°=22°, so that delay will be 22x0.2=4.4°. This is little bit ATDC. This delay is realised only up to 500 RPM. If you want increase delay - increase this value.

We think that engines with new rotor (firing after TDC at start) not need any support regarding start. But if you want - you can to use "Lower advance by start %". Note that too big delay (firing at too high angle after TDC) can impair startability.

New Advance start flywheel

- New flywheel with 3 degrees ATDC starting timing.

(Old flywheel 4^0 BTDC start-up timing)

- New Flywheel hub p/n: 966872