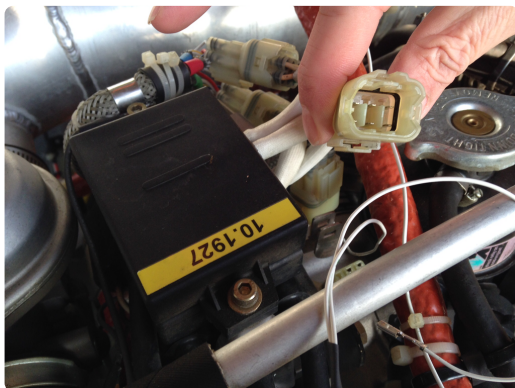


ROTAX 912ULS Easy Start einbauen

Bei Temperaturen gegen den Gefrierpunkt hatte ich Probleme beim Starten vom Rotax 912 ULS. Wegen der Vorzündung schlug der Motor während dem Anlassen manchmal zurück. Das macht ein hässliches Geräusch und schadet dem Anlasser. Bei Rückfragen bei der Firma Franz erfuhr ich, dass meine Zündung mit dem EASY START ausgerüstet ist und nur noch angeschlossen werden muss. Mit folgenden Infos ist das Aktivieren kein Problem. Die 2 Spezialpins mit ca. 20cm Draht und Gummidichtung müssen vorgängig beim Rotax Vertreter bestellt werden.

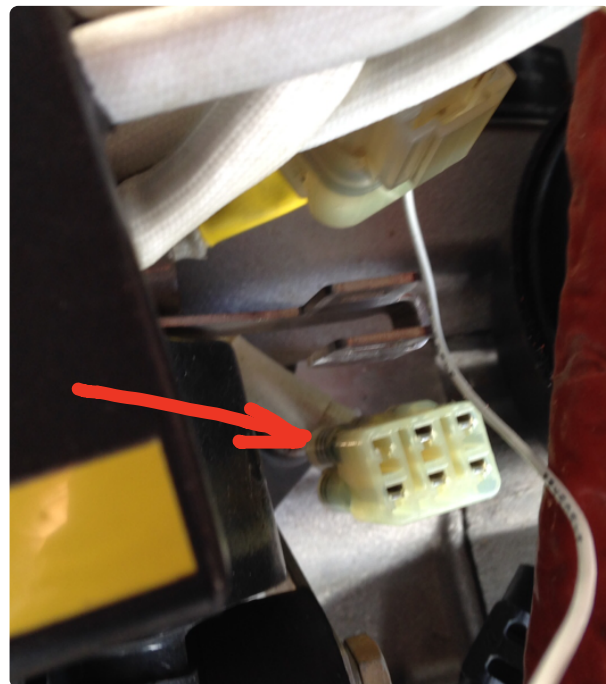


An der Zündbox hat es 2 horizontale und etwas weiter unten 2 vertikale 6-fach Stecker. An den 2 vertikalen Steckern muss am unteren Teil je ein Pin in die freie Öffnung von unten her eingesteckt werden. Vorgängig muss mit einem sehr feinen Schraubendreher von der Drahtseite her die Gummidichtung raus gestossen werden.

Am besten geht es, wenn man vorerst alle 4 Stecker mit einem Schraubendreher von der Halterung löst. Zum Trennen der Steckerverbindung seitliche Sicherung mit Schraubendreher eindrücken.

Die 2 neuen Drähte zu einem Draht verbinden und diesen dann am Starterrelay anschließen.

Aus der **ROTAX Info** ist ersichtlich, ab welcher **Motorennummer Easy Start bereits eingebaut ist** und folglich nur noch angeschlossen werden muss.



Freier Pin

SECTION 74-00-00

1.) Introduction of a advanced start module (easy starting device for the electronic module)

1.1) General Information

(see fig. 1 and 2)

In the course of further development and standardization an electronic module for delayed start up ignition timing has been introduced. This module can be activated by a 12 V signal. Without this optional 12V activation the function works the same way as on the well-proven previous module.

In this context the following needs to be considered:

- 1 wire of each module circuit A and circuit B (6-pole) to start relay control signal wire(see position 26 in fig. 1) must be supplied by the aircraft manufacturer. Therefore the rubber plug of the pin terminal must be removed before!
- Time factor for delaying ignition timing at start until switching to advanced ignition: After starting the engine and as soon as the starter/relay is not powered anymore, the engine continues to further run for 3-8 seconds with delayed ignition.
- Do not connect the signal wire to the electric starter motor - as the circuit has not voltage protection.
- Do not power the advanced start terminal permanently with 12V. The delay timer function would be bypassed and charging speed might vary (depending on internal tolerances, trigger gap etc.).

The new electronic modules with a starting device have been already installed on the following engines:

- 912 S as of S/N 4,923.847
- 912 ULS as of S/N 6,775.360
- 912 ULSFR as of S/N 6,775.360

List of part no.:

Item no.	New part no.	Qty.	Description	Old part no.	Application
	966872	1	fly wheel hub	966871	ignition system
	881280	1	soft start port		ignition system
consisting of:					
	966727	2	SMD electronic module	966726	ignition system
	827800	1	disc A 5.5		ignition system
	240186	2	allen screw M5x25		ignition system
	945750	1	lock washer A5		ignition system
	260130	2	cable grommet		ignition system
	265275	2	faston connector		ignition system

- ◆ NOTE: Engines having an ignition system which is already equipped with the new 6-pin connectors can be upgraded with both the new module and the new fly wheel hub. Older engines (not having 6-pin connectors) can only be upgraded with the new fly wheel hub. As a retrofit would require considerable changes concerning the wiring.

Technical background information:

Differences between electronic module part no. 966726 and part no. 966727:

		current 966726	new 966727
	fly wheel hub		
ignition point at start	966871 current	4° Before T.D.C.	4° Before T.D.C.
	966872 new	3° After T.D.C.	3° After T.D.C.
time delay for ignition at start:		none	3 - 8 sec.
Switching to advanced ignition:		from 650 to 1000 RPM depending on trigger gap	after the expiration of the time delay (3-8 sec.)
ignition timing in normal operation:		26° before T.D.C.	26° before T.D.C.

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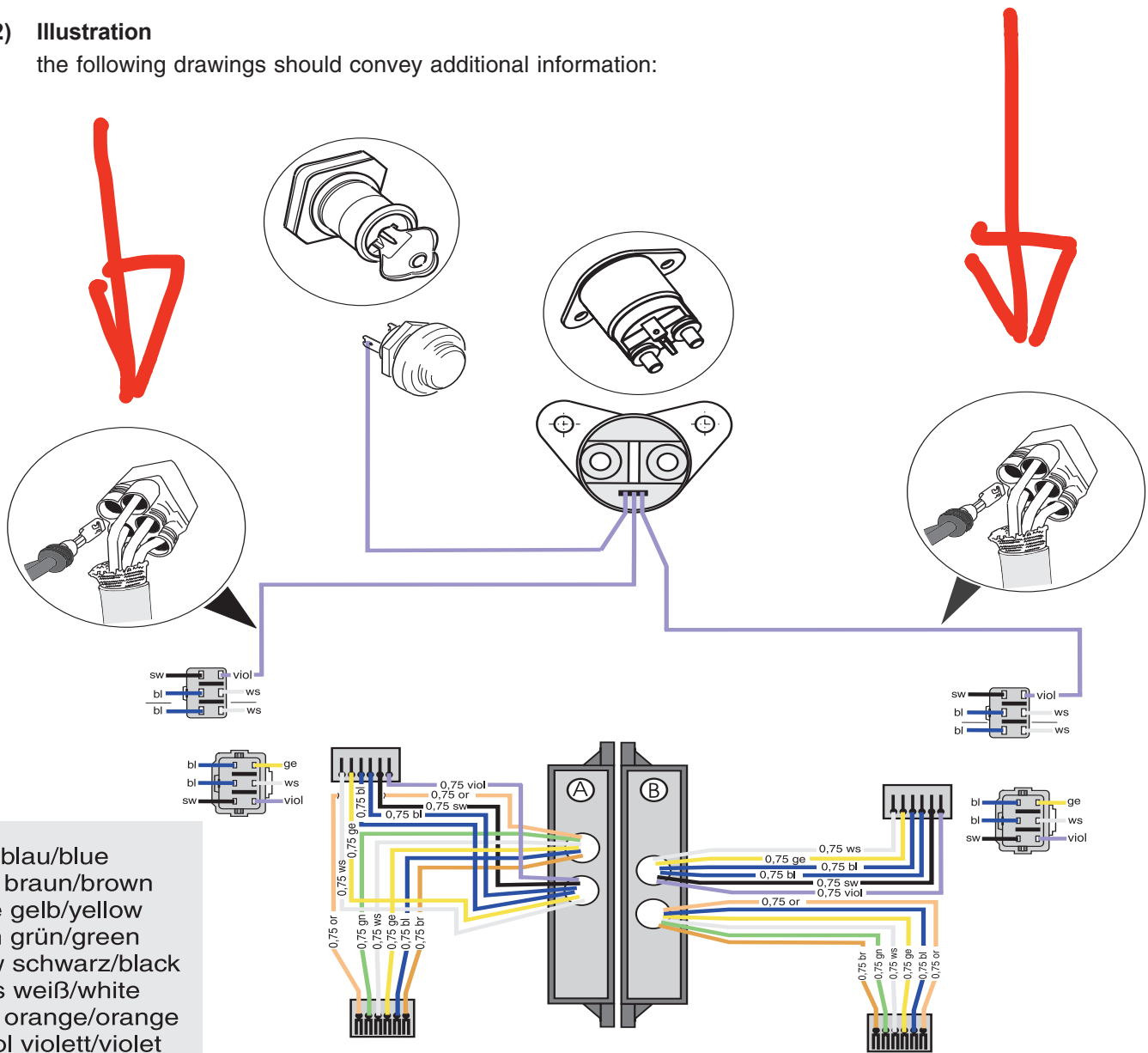
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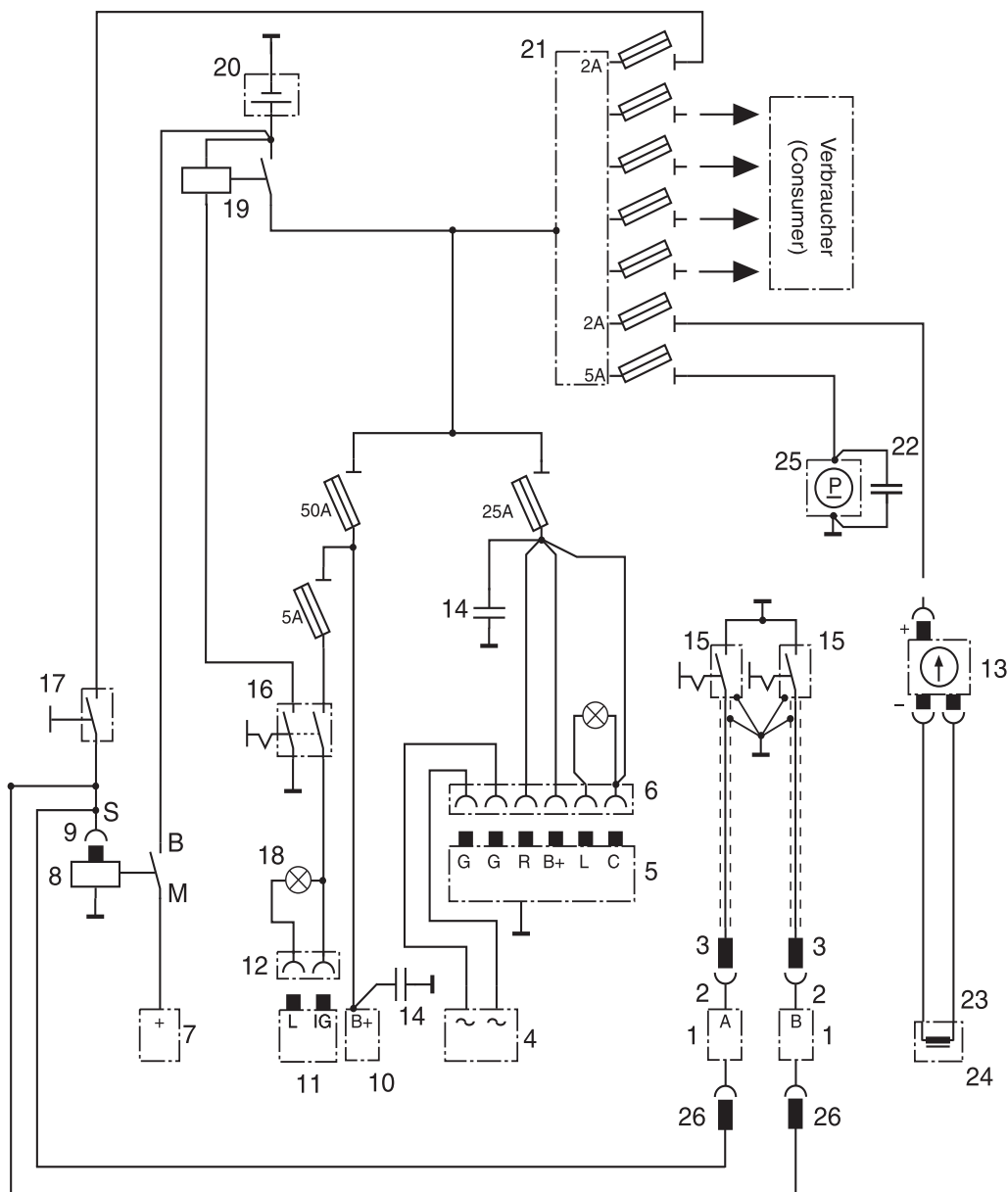
Installation:

- see latest Maintenance Manual (Heavy).

1.2) Illustration

the following drawings should convey additional information:





- | | | | |
|-------|--|----|--|
| B | battery | 15 | 2 ignition switches |
| M | engine | 16 | master switch |
| S | signal | 17 | starter button |
| 1 | 2 electronic modules (A and B) | 18 | control lamp |
| 2-3 | plug connection for ignition switch | 19 | battery relay |
| 4 | integrated generator | 20 | battery |
| 5-6 | external regulator - rectifier with plug connections | 21 | bus bar |
| 7 | electric starter | 22 | capacitor |
| 8-9 | starter relay with plug connection | 23 | plug connection for trigger coil assy. |
| 10-12 | external alternator with connections | 24 | trigger coil assy. (tachometer) |
| 13 | electric rev counter | 25 | electric fuel pump |
| 14 | capacitor | 26 | starting equipment at the electronic modules |

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fig. 2

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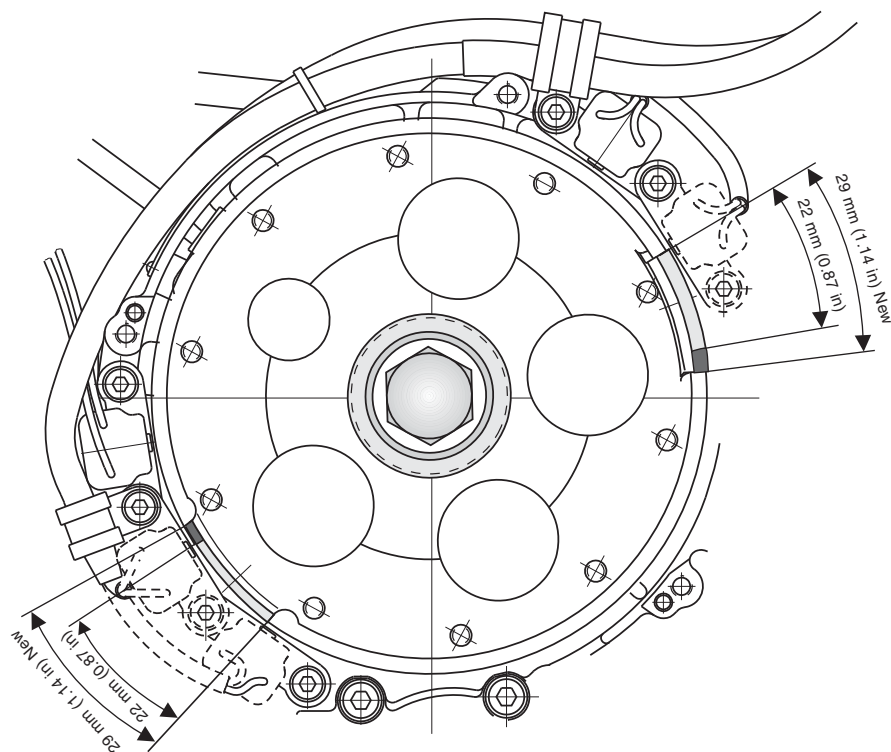
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Wiring symbols to DIN 40712, 40713, 40716 and 40719

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fig. 3

2.) Introduction of an alternative spark plug part no. 897259 for ROTAX 914® Series

2.1) General Information

In the course of continuous development an alternative spark plug has been introduced.

2.2) Interchangeability of parts

- All parts are interchangeable.

parts requirement:

Fig item. no.	New part no.	Qty per engine	Description	Old part no.	application
	897259	8	spark plug DPR9EA-9	-	ignition system

◆ NOTE: Spark plug part no. 897257 with specification X27EPR-U9 is interchangeable. Any mixing of spark plug part no. 897259 and part no. 897257 should be avoided.

2.3) Removal and installation

- see latest Maintenance Manual (Line).