

IMPORTANT NOTE: *In position „AUTO“, the valve closes in any case, when the power-plant is retracted.*

This is intended to prevent the bistable solenoid valve from staying open, when the main switch is turned off.

IMPORTANT NOTE: *When the engine is running, it consumes fuel at a higher rate than fuel coming from the wing tanks.*

Therefore, it is always possible to manually open the valve with the switch-position “ON”. With 3,5Ltrs in the fuselage tank, the fuel content in the fuselage tank should be ahead sufficiently enough.

NOTE: *The solenoid valve is a bistable one, that needs only short impulses to toggle. To ensure the correct position of the valve, it gets a short pulse regularly. On ground this can be heard as a quiet click. This is no malfunction.*

The calibration of the fuel sensor was done with fuel-oil mixture based on AVGAS 100LL. Mixtures based on other fuel qualities may lead to deviating indications. Thereby the deviation is largest with full tank and zero with empty tank.

The power-plant instrument can be set to other qualities. The fuel tank must be filled with at least 6Ltrs (1.58 US Gall) and the power-plant retracted. Press button (9) four times until „Calibr. ?“ appears at the display. Then keep button (9) pressed for five seconds to perform the calibration.

After the calibration, the power-plant instrument assumes that the signal from the fuel sensor corresponds a full tank. With a full tank, the difference between flight and ground attitude is small.

Display- and warning-ranges of the power-plant instrument:

Type	Display-range	Optical	Acoustic
Rotational speed	400 – 9990 rpm	See section 2.5	> 4500 rpm permanent alarm
Battery voltage	10 – 15V	< 11,5V LED (5) blinks	< 11,5V permanent alarm
Fuel quantity	0 – 6,3Ltrs	< 2,5Ltrs LCD blinks	< 2,5Ltrs permanent alarm
Valve of wing tanks	If switch (10) is toggled to "AUTO" and the engine is extended, the valve opens below 3,5Ltrs in the fuselage tank and closes at 6Ltrs	LED (11) lights, when valve open	
Elapsed time counter	Counts above 2000 rpm		
Electric fuel pump	Runs when the engine is extended and rpm are below 3500		
Prop brake open and engine not fully extended		LED (7) blinks	Pulsed alarm
Running time of jackscrew		> 20s LED (7) blinks	> 20s pulsed alarm

Rear-view mirror

A rear-view mirror in the cockpit is necessary to check the correct position of the propeller before retracting the power-plant.

IMPORTANT NOTE: *To fill the fuselage tank, the wing tanks should be empty or disconnected. Otherwise it is not excluded that the wing tanks partially drain into the fuselage tank.*

As the wing tanks are not equipped with a fuel gauge, it is advisable to fill from a container of a capacity approximately matching that of one wing tank, or at which the issued quantity can be read off. Only one wing tank should be connected at one time and the according wing should be lowered.

IMPORTANT NOTE: *During refuelling of a wing tank, its fuel hose **and** ventilation must be connected.*

After refuelling, switch (10) at the power-plant instrument must be toggled to "OFF" or "AUTO" again. Otherwise the solenoid valve would stay open and fuel from the wing tanks would fill the fuselage tank and afterwards overflow through the ventilation.

Refuelling the fuselage tank in flight

The engine is fed with fuel exclusively from the fuselage tank. The wing tanks merely serve to top up the fuselage tank. If, therefore, the fuselage tank is to be topped up with fuel from the wing tanks in flight, the solenoid valve of the wing tanks must be opened with switch (10) of the power-plant instrument (Position "ON", or while the power-plant is extended and when less than 3,5Ltrs are left: "AUTO"). The yellow LED (11) indicates the opening of the valve.

WARNING: *With the switch in position "ON" care should be taken to close the wing tanks again in good time to prevent the fuselage tank to be overfilled. This would cause fuel to be lost through the tank ventilation. Monitor the fuel level indicator.*

WARNING: *The position "AUTO" of the switch (10) works only with the power-plant extended.*

Position "AUTO" of the switch (10) can be recommended as standard setting.

Draining wing fuel tanks on the ground

In order to drain the wing tanks on the ground, both flexible wing fuel tanks must be disconnected from the fuselage tank. Have a suitable container ready. Insert the blank end of the refuelling hose into the container, and connect the other end to the wing tank.

7.14 Electrical System of the Power-plant

The electrical system of the power-plant is fed by a 12V-battery located below the seat-pan between aero-towing-hook and control-column. A 25A fuse is designated immediately at the battery. This battery supplies the power-plant system (via a 12A circuit breaker), the refuelling pump, and it can be selected for the avionic with the avionic main switch.