

## PA28 Conversion

The following information has been prepared to guide pilots who are converting to the Piper Warrior aircraft from the School's 2-seat Cessna 152 aircraft. The place to start is to walk round the aircraft and sit in the cockpit with the aircraft checklist and using the touch-check method, go through the various procedures. After that, the pilot should read the appropriate Flight Manual.

There are, of course, some obvious differences from the previous aircraft flown. In the case of School aircraft it will mean flying a low wing aircraft with different lookout procedures; the need to understand the role of the fuel pump because the fuel is not gravity fed; and the need to appreciate the different loading procedures plus the fact that there will be a different feel to the aircraft between one pilot on board with a light fuel state and possibly four people on board with full fuel.

The main features to remember are as follows:-

### Weight and Balance

Refer to Flight Manual and Ships' papers. M. A. U. Wt. depends upon the individual type of Warrior.

### Electrical System

The electrical system includes a 28 volt, 60 amp alternator, a 24 volt battery, voltage regulator and master switch relay.

### Pre-Start / Walk-Round

Do ensure after each fuel drain check that each drain re-seals. In the case of the Gasculator drain, a fuel tank must be selected ON before checking. Learn to estimate fuel contents from the fuel lever relative to the 'step' (filler neck indicator tab) in the fuel tank as backup to the contents gauge(s)>

### Starting

Re-cycle handbrake. Check fuel pump before start-up. The OFF. Lowest fuel tank selected. All as checklist.

### Power Check

Change to fuller tank before power check. Run at 2000rpm. Do not change tank after power check. Max. Mag drop 175rpm. Max. difference 50rpm.

### Speeds

See Flight Manual as required.

Summary as follows:-

|                                |             |
|--------------------------------|-------------|
| Typical Rotate Speed – clean   | 65 – 70 kts |
| Climb – clean                  | 75 – 80 kts |
| Climb – optimum flap           | 70 kts      |
| Normal Cruise                  | 100 kts     |
| Low Safe Cruise – optimum flap | 75 kts      |
| Circuit Speed                  | 90 kts      |
| Final Approach – full flap     | 70 kts      |
| Final Approach – glide         | 75 kts      |
| Final Approach – short field   | 65 kts      |
| Max. cross wind component      | 17 kts      |

### Airborne

Fuel Pump. OFF above 1500' AGL

Joining. Fuel pump ON or at any time below 1500' / 1000' AGL  
Remember. Note Max. X-wind limit is 17 kts.

Changing Fuel Tank in the Air. Fuel pump ON until approx. 2 mins. After  
changeover. Monitor fuel pressure.

Carburettor Heat. As for Lycoming engine. Select the carburettor heat  
whenever deemed necessary. However, always land with Cold air selected  
so that there will be no problem in the event of a go-around. Select ON &  
OFF during downwind checks – and on base leg if making glide approach but  
back to Cold air for landing. Read Flight manual.

Trimming. Note that there is a rudder trim.

### Emergencies

Refer to Flight Manual and aircraft checklist. However, the following may be useful:-

Failure / Restart Checks. Fuel pump ON, change to the other fuel tank,  
Change Carb. Heat Mode. Then the remainder: T's & P's, Fuel contents,  
mixture, mags, Primer locked etc.

Crash Security Checks. As standard:- T I F F H H M M

### Garmin 430

This aircraft is fitted with Garmin 430 GPS equipment. DSFT booklet is available on  
this website under other courses.