

# Flight manual DG-1000T

## 0 Revisions

### 0.1 Record of revisions

Any revision of the present manual, except actual weighing data, must be recorded in the following table and in case of approved sections endorsed by the responsible airworthiness authority.

The new or amended text in the revised page will be indicated by a black vertical line in the right hand margin, and the Revision No. and the date will be shown on the bottom left hand of the page.

Rev. No.	Affected Pages/ section	Description	Issue Date	EASA Approval Date	Inserted Date Signature
1	0.5, 7.14, 7.15	TN1000-09	October 2006	12.12.2006	

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## 0.2 List of effective pages (cont.)

Section	Page	issued	replaced/	replaced/
6	6.1	July 2005		
	6.2	"		
	6.3	"		
	6.4	"		
	6.5	"		
	6.6	"		
	6.7	"		
	6.8	"		
	6.9	"		
	6.10	"		
	6.11	"		
7	7.1	July 2005		
	7.2	"		
	7.3	"		
	7.4	"		
	7.5	"		
	7.6	"		
	7.7	"		
	7.8	"		
	7.9	"		
	7.10	"		
	7.11	"		
	7.12	"		
	7.13	"		
	7.14	"	October 2006	
	7.15	"	October 2006	
	7.16	"		
	7.17	"		
	7.18	"		
	7.19	"		
	7.20	"		
	7.21	"		
	7.22	"		
	7.23	"		
	7.24	"		

**CAUTION:** If the stall factor is set to 0.89 the stall warning is switched off completely. This setting is only allowed to eliminate a permanent stall warning in case a sensor fails. Send the DEI for repair to the manufacturer as soon as possible.

**CALIBRATE FUEL G(auge):** Calibration of the fuel gauge with empty tank.

Push the selector knob, N will be displayed, rotate the selector knob, Y will be displayed. Push the selector knob to execute the calibration.

**SYSTEM SETUP \*\*\*\*:** Only for service by the manufacturer.

Push the selector knob until the DEI-NT beeps twice to leave the set-up screen.

### 7.4.5 Display of powerplant failures and warnings

In case of powerplant failures and if warnings are necessary full screen messages are displayed. All messages may be verified by a short push of the selector knob, the DEI-NT changes back to the normal screen.

#### **Powerplant failures:**

Upper line displays "Failure" and is blinking, 2. line displays:

- "Engine Info" = no data transfer between DEI-NT and control unit
- "Spindle Fuse" = the fuse for the spindle drive is blown -> wait until it cools down and resets
- "RPM Pickup" = proximity switch defective -> automatic extension-retraction will be switched off
- "Primer Valve" = Primer-valve defective
- "OAT Sensor" = Outside air temperature sensor defective
- "CHT Sensor" = Cylinder head temperature Sensor defective
- "Fuel Sensor" = Fuel sensor defective

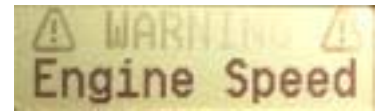
#### **Warning messages:**

Upper line displays "Warning " and is blinking, 2. line displays:

- "Canopy Open!" = rear canopy not locked
- "Spoiler" = airbrakes not locked, this warning is displayed only prior to and during take-off and will not be displayed when airbrakes are unlocked during the flight
- "Raise Gear" = Landing gear should be retracted, appears 4 minutes after take-off in case the landing gear is still extended
- "Landg. Gear " = Landing gear warning when airbrakes are unlocked and the landing gear is still retracted
- "Stall" = Stall warning appears simultaneously with the acoustically or tactile stall warning.
- "Low Battery" = Battery voltage permanently below 11V
- "Battery Overch." = Battery voltage permanently above 14,7V
- "Switch Error" = wrong sequencing of switches during powerplant extension -> automatic retraction will be switched off

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- "CBox OvrTemp" = Starter motor control in control unit above temperature limit
- "CHT OverTemp" = CHT above max. certified value
- "Water Freeze" = OAT below +2°C
- "Low Fuel" = low fuel level
- "Engine Speed" = Engine RPM above max. certified value.
- "Starter Run" = Starter motor didn't disengage and produces electric power, stop the engine immediately to prevent damage of the electrical system. This message can't be deleted by pushing the selector knob.



### Explanation for failure messages

#### Spindle Fuse:

The re-settable fuse for the spindle drive may be blown in the following cases:

- a) The propeller hub hooks during extension at the engine doors.
- b) The limit switch in position engine extended or retracted is not operated.

As soon as the fuse is blown the Control Unit changes to manual extension-retraction mode and thus cuts off the electric power to the spindle drive and reports the failure to the DEI-NT.

After the cool-down time (approx. 10sec.) the message disappears and the symbol for manual operation (hand) will be displayed on the screen.

You may reactivate the automatic operation by operating the ignition switch, even during the cool-down time.

Case a) Retract the powerplant again manually, then try to extend the engine again..

Case b) Retract the engine manually a little and then try to extend the powerplant manually up to its operating position.

#### Switch Error: wrong consecution of switches during powerplant extension

If the DEI-NT has detected a wrong sequencing of the limit switches during powerplant extension, the powerplant will not be retracted automatically after stopping the engine, but the system switches over to manual operation and „Switch Error“ and the “hand” symbol will be displayed on the centre display. There is a possibility that the powerplant doesn't stop in the position where the propeller should stop turning and the still turning propeller hits the propeller stopper.

If the pilot can't detect any failure he may confirm the warning and reactivate the automatic retraction (switching the ignition on and off), but not before the propeller stops turning.