

LX BU 57

LX combined IAS, Altimeter and Vario unit with back up power supply

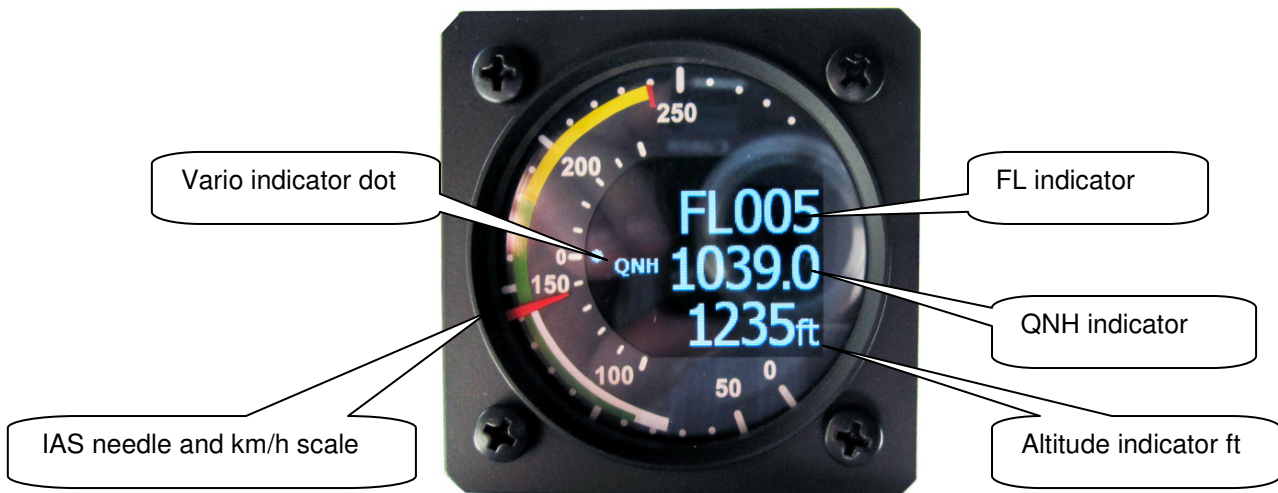
1 General

The unit consists of sensor electronic box and a colour display module with mechanical needle driven by a stepper motor. The unit highlights:

- 57 mm air norm
- 65x65x 140 mm without connector and pressure tubes
- Power supply 12/24 V DC
- QNH input via external rotary switch
- External battery pack for 2 hours of operation without main power
- Weight: 57 mm unit 380 gr , battery pack 80 gr

2 Principle of operation

The unit has built in sensor for IAS and a precise digital altitude sensor for altitude and variometer. The display is a combination of a sunshine readable colour graphic display and a mechanical needle driven by a stepper motor. Input of QNH is realized after using of an external rotary switch.



Side view

2.1 Power management

2.1.1 Change over automatism

The unit receives its power from the aircraft main battery during normal operation. After main power fault, emergency power will start power the unit. Change over from main to emergency power is without power break and fully automatic, without any pilot assistance. Mentioned will happen only during flight in case that airspeed is detected. In case of no speed signal that means aircraft is on ground the emergency power will not become active.

2.1.2 Emergency battery charging

An intelligent charger recharges the battery during normal operation, in fact during flight. So the battery will be ready to supply the unit at any time.

2.1.3 Battery maintenance

The battery pack doesn't need regular maintenance. It is suggested to check once a year the capacity of the battery after using of following procedure:

- apply main power
- apply pressure to the pitot input to get reading on IAS about 100 km/h
- disconnect main power and check how many time will the unit operate without main supply

Note!

If the speed will go below 50 km/h the unit will switch off, so monitor speed indicator during test period.

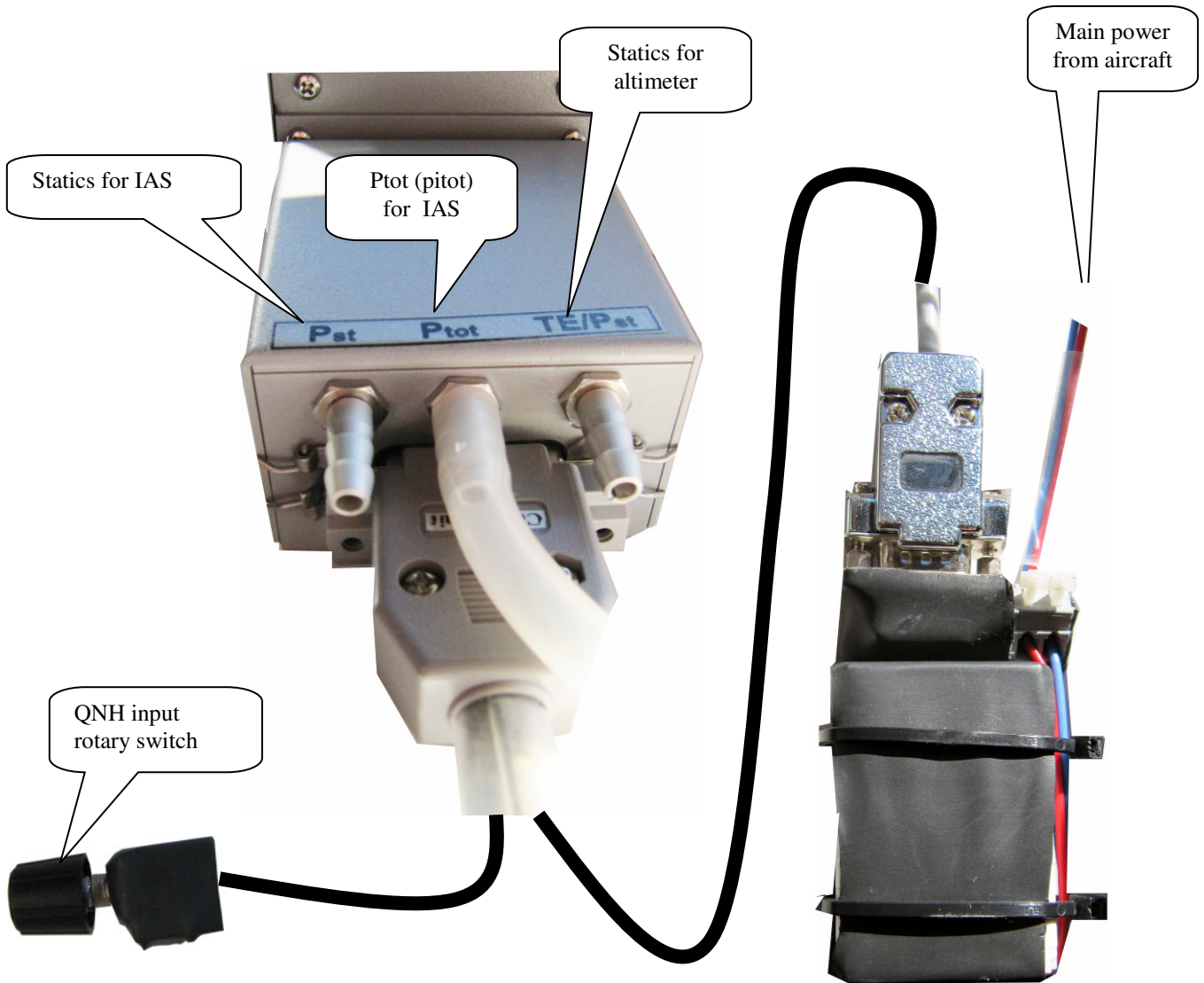
2.1.4 Battery replacement

Replacement of the battery is very easy. Order a new pack and simple connect red and blue wire to the terminal springs.

3 Installation Instructions

The system consists of:

- 57 mm indicator and sensor box
- cable set
- battery charger
- Li-ion battery
- rotary switch with cable



3.1 Limitations:

- the unit hasn't built in fuse, so it is recommended to use 1 A fuse in mains line
- mains supply: 9-28 V DC

3.2 Final inspection

- apply aircraft main supply and the unit should switch on
- check altitude/QNh adjustment via rotary switch
- disconnect main supply; the unit should switch off after apr. 2 seconds
- apply main supply
- apply pressure on pitot to read more than 50 km/h
- switch main power off and the unit should continue working
- disconnect pressure and the unit should switch off