# SERIES 2000

PRECISION ALTIMETER

FEATURING
CALIBRATED BARO SCALE
InHg  -  Model 2000
mBar  -  Model 2001
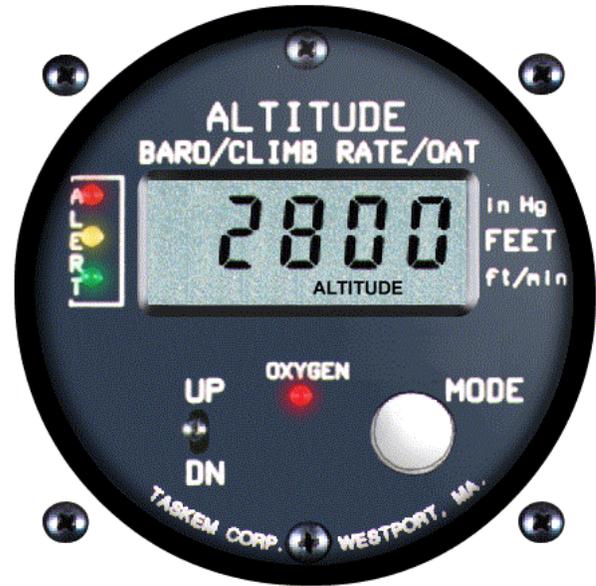
CLIMB/DIVE RATE INDICATOR

ALTITUDE ALERT FUNCTION
    WITH AUDIO/VISUAL ALERTS

OXYGEN ALERT INDICATOR

PRESSURE ALTITUDE

RS-232 COMPUTER OUTPUT

BACKLIGHTED DISPLAY

OPTIONS:
    1.  OAT AND DENSITY ALTITUDE
    2.  MODE C ENCODER OUTPUT

VERY REASONABLY PRICED
  TWO YEAR WARRANTY

**TASKEM**
CORPORATION

# SPECIFICATIONS

## GENERAL

- DISPLAYS:  Colored light emitting diodes (LED) and a high contrast liquid crystal display (LCD) with custom legends and 0.4 inch high digits.  All LEDs and display segments are tested on power up.

- DATA UPDATE RATE:  All output data and displays updated every 0.6 seconds.

- OPERATION:  All operating modes selectable by a single, front-panel push switch.  Modes are organized in a logical, easy to remember arrangement.

- OXYGEN ALERT:  An LED illuminates if altitude exceeds 12,500 feet to warn that oxygen may be required.

- WARM-UP PERIOD:  Less than 2 minutes.  An oven is used to maintain critical pressure sensing electronics at uniform temperature.  No data is available until oven reaches operating temperature.

- SERIAL OUTPUT:  Pressure altitude, altitude and vertical speed (VSI) are output in 5 Volt, RS-232 format at 9600 baud.  Outside air temperature (OAT) and density altitude are also output if temperature/density option is installed.  Baud rate is not adjustable.

- POWER REQUIREMENTS:  11 to 35VDC.  Operates directly from standard 14 or 28V aircraft power without modifications or adapters.  At 14V, 400mA maximum current drain during warm-up, 60mA typical thereafter.

- BACKLIGHTING VOLTAGE:  Separate inputs for 14 or 28V lighting sources.  10mA maximum current drain at full brightness.

- ENVIRONMENTAL CONDITIONS:  Meets or exceeds all temperature, humidity, vibration, over-pressure and magnetic effect requirements of FAA TSO-C10b, paragraph 3.3.

- WEIGHT:  Less than 8 ounces.

- DIMENSIONS:  Standaard 3 1/8" instrument case.  3" dia x 3 7/8" depth behind back of instrument panel (plus 3/4" connector depth).

- MATING ELECTRICAL CONNECTOR:  26 pin card edge connector, 3M thpe 3462 or equivalent, supplied with 4' cable pigtail.

- PRESSURE CONNECTOR:  3/16" barb.  Mates with 5/32" ID x 9/32" OD plastic tubing, Nalgene series 180 or Tygon R-3603 or equivalents.  A sample length is supplied.

## STANDARD MODES

- ALTITUDE:
  - RANGE:  -1,000 TO +30,700 feet @ STD pressure.
  - RESOLUTION:  10 feet.
  - ACCURACY:  Meets or exceeds FAA TSO-C10b.

- BAROMETRIC REFERENCE:  Settable from 24.00 to 31.00 inHg (Model 2000) or 813 to 1,050 mBar (Model 2001).  The extreme lower limit allows "zeroing" for field elevations to 6,000' AGL (ultralight mode).  Last pressure reference setting is retained in memory.

- CLIMB/DIVE RATE (VSI):
  - RANGE:  -8,000 to +8,000 feet/minute.
  - RESOLUTION:  50 feet/minute.
  - RESPONSE TIME:  Approx. 6 seconds.

- ALTITUDE ALERT MODE:
  - TARGET ALTITUDE:  Set to the nearest whole 100 feet of current altitude when entering alert mode.
  - WINDOW:  Initially ±200 feet.  Adjustable from 100 to 1,000 feet in 50 foot steps.
  - DISPLAY MODES:  Altitude or deviation from target altitude.
  - VISUAL ALARMS:  Colored LEDs indicate deviation from target altitude as a percent of selected window as follows:

    | less than 70% | - | solid green |
    |---|---|---|
    | more than 70% | - | flashing yellow |
    | more than 100% | - | flashing red |

  - AUDIO ALARMS:  Low-level output suitable to drive intercom or other systems.  Beeping tone sounds if deviation goes over 70% or 100% of window (silenced by pressing MODE button).  Tone pitch indicates if altitude is high or low.

## OPTIONS (OAT & density altitude are a single option)

- OUTSIDE AIR TEMPERATURE:
  - RANGE:  -55 to +60 °C.
  - RESOLUTION:  1 °C.
  - ACCURACY:  ± 2 °C.
  - TEMPERATURE PROBE:  Semiconductor type, supplied with 8' cable pigtail.

- DENSITY ALTITUDE:
  - RANGE:  to 32,800 feet.
  - RESOLUTION:  100 feet.
  - ACCURACY:  ±120 feet, plus temperature error.

- MODE C ENCODER:
  - RANGE:  -1,000 to +30,700 feet.
  - RESOLUTION, ACCURACY & FORMAT:  Per FAA TSO-C88a.
  - TEMPERATURE RANGE:  TSO-C88a, Category B1.