

## DAVTRON GAUGES FOR MICROSOFT ® FLIGHT SIMULATOR

### NOTE

**Current document is based on the parts of real-world Pilot Operation Manual that had been revised and changed to be used with Microsoft® Flight Simulator (MSFS). Current document cannot be used for the real-world flying as a substitute for the official Pilot's Operating Handbook or any other Airplane Information or Airplane Flight Manual**

### REVISION HISTORY

The following Log provides the date of issue for original and revised version of Gauge software and User Manual

- Version 1.0 – Contains Original Version of Davtron M803 Clock/Voltmeter/O.A.T gauge.
- Version 1.1 – Bug of Elapsed Time (ET) and Flight Time (FT) counting was fixed. Some minor improvements.
- Version 1.2 – Bug fixed with Elapsed Time (ET) and Flight Time (FT) counting while Pause. Gauge file version is 1.2.276. Structure of Information Manual has been changed slightly. Limitation Sections has been improved. June 24, 2003.

### INSTALLATION

Unzip installation package archive into some temporal directory

Copy **Davtron.gau** file to the **\Current MSFS path\GAUGES** folder. If you are using previous version of presented gauge overwrite previous files with new ones while prompted.

Add something like following line into your panel.cfg file where you want to install:

gaugeXX=Davtron!M803, X-pos, Y-pos, W, H

where X-pos, Y-pos – the X and Y position of the gauge in millimeters relative to the panel background; W and H – the width and the height of the gauge in millimeters. Default gauge size is 76×76 mm (for 1024×768 mm panel size)

Make sure that following system fonts is installed:

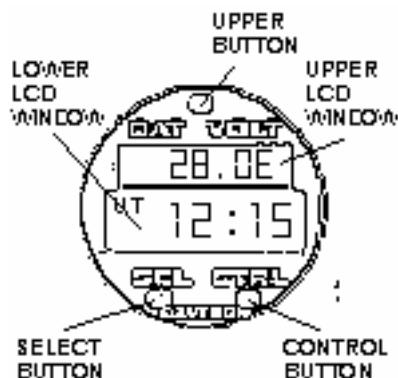
- Arial
- Arial Narrow
- Quartz

Note you can use that gauge with Virtual Cockpit also.

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## DAVTRON MODEL 803 CLOCK/O.A.T.



### SECTION 1. GENERAL

The Davtron Model 803 digital clock combines the features of a clock, outside air temperature gauge (O.A.T.) and voltmeter in a single unit. The unit is designed for ease of operation with a three-button control system. The upper button is used to control sequencing between temperature and voltage. The lower two buttons control reading and timing functions related to the digital clock. Temperature and voltage functions are displayed in the upper portion of the unit's LCD window, and clock/timing functions are displayed in the lower portion of the unit's LCD window.

The digital display features an internal light (back light) to ensure good visibility under low cabin lighting conditions and at night. The backlight is turned on with the turning of panel lights.

Presented gauge is almost full functional analogue of the real Davtron M803 digital clock/O.A.T gauge installed, in particular, in Cessna aircrafts and can be used with Microsoft Flight Simulator 2000/2002.

Current part of the real-world Operation Manual had been revised to be used with Microsoft Flight Simulator.

### SECTION 2. LIMITATIONS

There is no change to the airplane limitations when the digital clock/O.A.T. is installed.

Any applied settings of Flight Time and Elapsed Time will be not saved while Flight saving. So, after game restarting you have to reapply settings you want.

### SECTION 3. EMERGENCY PROCEDURES

There is no change to the airplane emergency procedures when the digital clock/O.A.T. is installed.

## **SECTION 4. NORMAL PROCEDURES**

### **O.A.T./VOLTMETER OPERATION**

The upper portion of the LCD window is dedicated by O.A.T. and voltmeter operations. The voltmeter reading is preselected upon startup and is indicated by an "E" following the display reading. Pushing the upper button will sequence the window from voltage to Fahrenheit ("F") to centigrade ("C"), and back again to voltage.

### **CLOCK OPERATIONS**

The lower portion of the LCD window is dedicated to clock and timing operations. Pushing the SEL button will sequence the window from universal time (UT) to local time (LT) to flight time (FT) to elapsed time (ET), and back again to universal time. Pushing the CTRL button allows for timing functions within the four SEL menus. Setting procedure are follows:

#### **SETTING UNIVERSAL TIME**

Use the SEL button to select universal time (UT). Click with right mouse button on the lower portion of the LCD (marked with hand cursor) to enter the set mode. The tens of hours digit will start flashing. The CTRL button has full control of the flashing digit, and each button push increments the digit. Once the tens of hours is set the SEL button selects the next digit to be set. After the last digit has been selected and set with the CTRL button, a final push of the SEL button exists the set mode. The lighted annunciator will resume its normal flashing, indicating the clock is running in universal time mode.

#### **SETTING LOCAL TIME**

Use the SEL button to select local time (LT). Click with right mouse button on the lower portion of the LCD (marked with hand cursor) to enter the set mode. The tens of hours digit will start flashing. The set operation is the same as for UT, except that minutes are already synchronized with the UT and cannot be set in local time.

#### **FLIGHT TIME RESET**

Use the SEL button to select flight time (FT). Hold the CTRL button down for about 3 seconds, or until 99:59 appears on the display. Flight time will be zeroed upon release of the CTRL button.

#### **SETTING FLIGHT TIME FLASHING ALARM**

Use the SEL button to select flight time (FT). Click with right mouse button on the lower portion of the LCD (marked with hand cursor) to enter the set mode. The tens of hours digit will start flashing. The set operation is the same as for UT. When actual flight time equals the alarm time, the display will flash. Pressing either the SEL or CTRL button will turn the flashing off and zero the alarm time. Flight time is unchanged and continues counting.

#### **SETTING ELAPSED TIME COUNT UP**

Use the SEL button to select elapsed time (ET). Press the CTRL button and elapsed time will start counting. Elapse time counts up to 59 minutes, 59 seconds, and then switches to hours and minutes. It continues counting up to 99 hours and 59 minutes. Pressing the CTRL button again resets elapsed time to zero.

#### **SETTING ELAPSED TIME COUNT DOWN**

Use the SEL button to select Elapsed Time (ET). Click with right mouse button on the lower portion of the LCD (marked with hand cursor) to enter the set mode. The tens of hour digit will start flashing. The set operation is the same as for UT, and a count down time can be set from a maximum of 59 minutes and 59 seconds. Once the last digit is set, pressing the SEL button exists the set mode and the clock is ready to start the countdown. Pressing the CTRL button now will start the countdown. When countdown reaches zero, the display will flash. Pressing either the SEL or CTRL button will reset the alarm. After reaching zero, the elapsed time counter will count up.

### **BUTTON SELECT DISABLE**

When there is no airplane power applied to the unit, the CTRL and SEL buttons are disabled.

## **SECTION 5. PERFORMANCE**

There is no change to the airplane performance when this equipment is installed. However, installation of this OAT probe will result in a minor reduction in cruise performance.