

ALTRONIC®, INC.
712 TRUMBULL AVENUE
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ALTRONIC DIGITAL HOURMETER DH-100A INSTALLATION INSTRUCTIONS FORM ADH II 5-86

1.0 DESCRIPTION

- 1.1 The Altronic DH-100A digital hourmeter is a solid state unit operating directly from capacitor discharge ignition systems, 8-48 VDC, 110-440 VAC or magnetic pick-ups. The hourmeter is designed for continuous operation and draws a negligible current from the power source. Hours are counted whenever power is applied to the device. The hours are shown on a LCD display whenever power is applied or when the button on the front case is depressed. Maximum range is 99,999 hours in 1 hour increments.
- 1.2 A quartz crystal driven oscillator in the hourmeter provides an accurate time base. The output frequency of the crystal is divided electronically to pulse at the rate of one per hour. An electronic counter and liquid crystal display drivers complete the circuitry.
- 1.3 A special, long life 3V. lithium battery cell serves as the memory power supply when the power is off. Battery life is estimated at 5 years. If the battery needs replacement, use National type BR435 or return the device to an authorized Altronic distributor or dealer.

2.0 SETTING FOR OPERATION

- 2.1 Two rocker switches are provided on the back of the hourmeter case. In normal operation, both should be in the OFF position.
 - No. 1 Switch ON - The hourmeter will count ahead at the rate of 2/second = 7200/hour. This feature allows the hourmeter to be preset to any desired figure. When the desired count is reached, turn switch No. 1 to the OFF position.
 - No. 2 Switch ON - Hourmeter will reset to 00000.
- 2.2 The above functions operate only when power is applied to the device. This can be done in the shop by applying 12 VDC across terminals "A" and "D" or 110 VAC across terminals "A" and "B-C".

3.0 MOUNTING

- 3.1 Mount the hourmeter inside a control panel using the template provided. For outdoor installations, enclose the hourmeter within the panel to avoid direct exposure to the weather. Be sure the enclosure door does not hit the push button.

NOTE: Avoid mounting with the LCD display facing direct sunlight. The operating temperature range is -40°F. to +175°F.

4.0 WIRING (SEE GENERAL HOOK-UP)

- 4.1 Connect the power source to the hourmeter in accordance with the voltage being applied and observing proper polarity. The ground polarity terminal should be connected to panel ground. On gas engines, do not connect the hourmeter directly to the common coil ground on the engine.

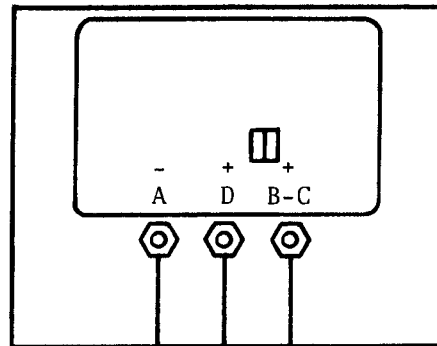
NOTE: Use the 24 AWG wire provided to make all connections to the device.

- A. C.D. IGNITION SYSTEMS - With all C.D. ignition systems, use the "A" terminal for the negative (-) connection and the "B-C" terminal for the positive (+) connection.

THESE SYSTEMS ARE NEGATIVE GROUND. CONNECT GROUND TO "A" TERMINAL; CONNECT SHUTDOWN LEAD TO "B-C" TERMINAL. Altronic I, I-6, I-D Altronic III Altronic V Bendix BLAR Bendix S1800, S1850 Bendix SS F-M 3000 F-M 9000 U.T. Mag-tronic	THESE SYSTEMS ARE POSITIVE GROUND. CONNECT GROUND TO "B-C" TERMINAL; CONNECT SHUTDOWN LEAD TO "A" TERMINAL. Altronic II F-M SCSA
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- B. 110-440 VAC - Connect to the "A" and "B-C" terminals.
- C. 8-48 VDC - Use the "A" terminal for the negative (-) connection and the "D" terminal for the positive (+) connection.
- D. MAGNETIC PICK-UP - Connect to the "A" and "D" terminals.
- 4.2 CLASS I, GROUP D OPERATION - The hourmeter operates with non-incendive circuits and mounted in a panel is certified for Class I, Group D, Division 2 areas. If intrinsically safe operation (Class I, Group D, Division 1) is required when operating from a C.D. ignition system, follow these additional steps:
1. Power the tachometer from Altronic barrier 690 107 or 690 108; follow hook-up instructions supplied with barrier.
 2. All intrinsically safe wiring must be kept at least two (2) inches away from other, non-intrinsically safe wiring. See NFPA standard No. 493 for details.

GENERAL HOOK-UP - DH-100A



110- MAG.
 8-48 440 PICK-
 VDC VAC UP C.D. IGNITION SYSTEM

(-)	X	X	Negative Connection See Section 4.1A
(+)		X	
	X		Positive Connection See Section 4.1A

NOTE: Only one (1) positive connection used to either D or B-C terminal as shown.

Use 24 AWG wire provided with the device for these connections.