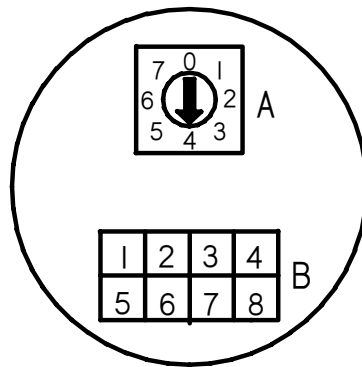


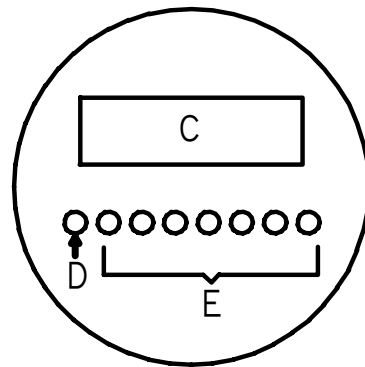
BATTERY DISCHARGE INDICATOR (BDI) AND HOUR METER

Connector pin configuration (B)

- 1: hour meter input -
- 2: key +
- 3: relay +
- 4: relay -
- 5: battery -
- 6: not used
- 7: not used
- 8: battery +



BACK



FRONT

- A. Shutoff voltage rotary dipswitch. Factory set to 4 (32.76 volts). This is the voltage at which the batteries are 80% discharged. Do not set below this voltage or battery life will be shortened.
- B. Connections to meter (molex connector)
- C. Hour meter (display is always on, but only counts time when negative voltage is applied to pin 1)
- D. Low voltage shutoff LED
- E. Battery condition LED's. (1 through 7 with 7 being fully charged batteries)

POSITION	0	1	2	3	4	5	6	7
VOLTS PER CELL	1.63	1.68	1.73	1.76	1.82	1.84	1.86	1.89
TOTAL VOLTS	29.34	30.24	31.14	31.68	32.76	33.12	33.48	34.02

BDI DISPLAY

When the machine is turned on, the battery level indicator is switched on and the LED (D or E) corresponding to the position currently held by the rotary dipswitch will turn on. Position 0 (zero) corresponds to the red LED (D), position 1 corresponds to the first yellow LED (row of 7 LED's (D), and so on. After that, all the LED's turn on for a few seconds (lamp test) and then ordinary operation is started. The battery level indicator features two voltage thresholds: the stopping threshold and the resetting threshold. The stopping threshold corresponds to the value of the voltage at the end of discharge and depends on the position of the rotary dipswitch (A) located at the back side of the indicator. The resetting threshold corresponds to the reset-point threshold of the device (this value varies along with the discharging current selected by the dipswitch (A) and is close to the battery nominal value). When the voltage value corresponding to the stopping threshold is reached, the last yellow LED will flash for 15 seconds, then the red LED will turn on, and the blocking relay will open. To reset, switch off the battery level indicator, charge the batteries, and then switch on the machine.

BDI OPERATION

When the battery level indicator is switched on, the battery voltage is measured, and:

- If the voltage is below the stopping voltage, the machine will not run.
- If the voltage is higher than the resetting threshold, all the LED's will turn on again and the battery level indicator will reset and the machine will run.
- If the voltage ranges between the stopping voltage and the resetting voltage, the LED's will turn on rapidly according to the condition prior to the switching off. If the previous condition was a stop, the last yellow LED will flash.