




Sensor Systems Watchman Limited, Shaerf Drive,
Lurgan, Co. Armagh BT66 8DD

Email: sales@sensor-systems.com

Telephone: +44 (0)28 3832 1111 Fax: +44 (0) 28 3832 4444

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The AdBlue Control Panel is a bespoke design to control, monitor and accommodate the efficient storage of AdBlue.

FUNCTIONS OF ADBLUE CONTROL PANEL

- Level Measurement
Ultrasonic or 4 – 20mA type identical transducer
- Overfill Alarm
Visual and audible
- Variable Low Level Cut Off
Pump will not work under 150 litres
- Bund Alarm
Active Conductive type sensor, 10mm from tank base
- Equipment Alarms
Notification if level measurement, bund or capacitive sensors are damaged

- House Light
- Remote Monitoring Facility
GSM/GPRS real time accessibility
Provision of Alarms
Web hosting and integration of level / status information to SAP, Sage etc
- Integrated Flow Meter
Flow in litres and cumulative amount
Auto display when pistol is lifted
Reverts back to level after 1 minute or via button toggle facility
- Flow Meter Conversion
91 – 100 pulses converter for flow equipment
- Automatic Pump Control
Cuts off after 5 minutes, if not used

PHYSICAL FEATURES

- Fire Resistant Cabling
- Safety Cut Off Emergency Stop Button
- Fire Retardant Box
- IP65 Rated Box
- Tested for Humidity, Heat and Cold from -25°C to 50°C
- Fits full range of AdBlue tanks

FILLING ADBLUE TANK

Do not exceed a maximum fill rate of 400 litres per minute.

1. Ensure pistol is in holder.
2. Fit delivery hose to valve.
3. Fill tank in normal manner.
4. Stop filling when Overfill Alarm sounds.
5. Disconnect delivery hose from valve.

DISPENSING FROM ADBLUE TANK

1. Lift pistol from holder.
2. The LCD will automatically switch to the Pistol Screen.
3. Dispense AdBlue.
4. Replace pistol in holder.
5. Pistol Screen will revert back to the Main Screen in 1 minute.

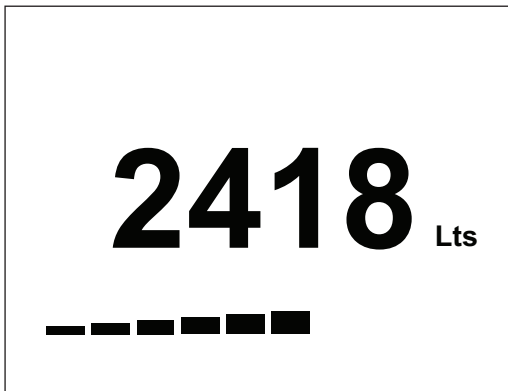


Figure 1: LCD – Main Screen

- When the control panel is switched on, the LCD 'Main Screen' will appear, as shown in Figure 1 below. The numeric indicator shows the volume of liquid remaining in the tank, in litres. The bar chart below the number is a visual indication of the tank's volume, each bar represents 1/10th of the volume (ullage).

FLOW MODE

- When the dispensing nozzle is removed from its holder, the LCD will automatically switch to the Pistol Screen, as shown in Figure 2.
- The large size numbers in the centre of the screen indicate how many litres have been dispensed at present. The small size numbers beside "TOTAL" indicates the total volume of liquid in litres dispensed.

- When the dispensing operation is complete and the dispensing nozzle is returned to its holder, the 'Pistol Screen' will revert back to the 'Main Screen' in approximately one minute. There is still the ability to move between the two screens by using the switch.
- If pistol is lifted off it's holder or not positioned back correctly, the pump turns off after 5 minutes if nothing is dispensed.
- It is possible to turn off the buzzer by pressing the switch.
- There is a light inside the cabinet which can be turned on and off by pressing and holding the switch for 5seconds. This light will turn off automatically after 5 minutes if nothing is dispensed.

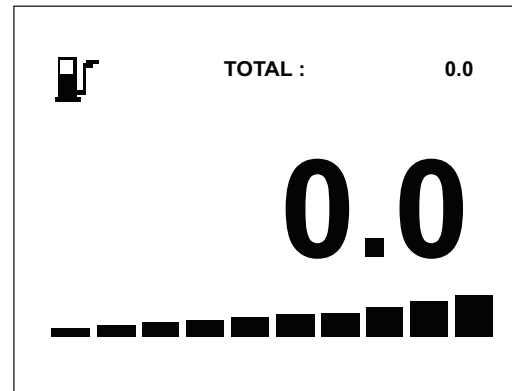


Figure 2: LCD – Pistol Screen

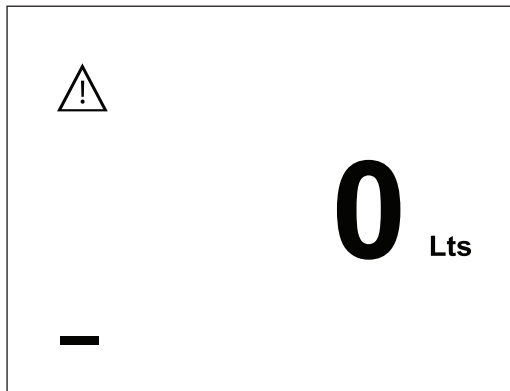


Figure 3: LCD – Low Level Alarm

- This symbol will appear in the top left corner of the display to indicate that there is at least one alarm mode present.



LOW LEVEL ALARM

- This indicates when there is less than 150 litres remaining in the tank and therefore it is not possible to dispense any more liquid. The pump is switched off automatically and cannot be switched on until the volume in the tank exceeds 150 litres.

Note: The first section of the bar chart will be flashing. There will be no buzzer sound and no alarm LED light.

LEVEL ALARM

- This indicates when a fault has occurred with the tank's level detection device and it therefore cannot measure the volume of liquid remaining in the tank. The volume displayed is the last good level received and will remain until new level is received.
- An alarm LED will light and a buzzer will also sound. It will not be possible to dispense liquid while it is in this alarm mode, as the pump will be automatically switched off.

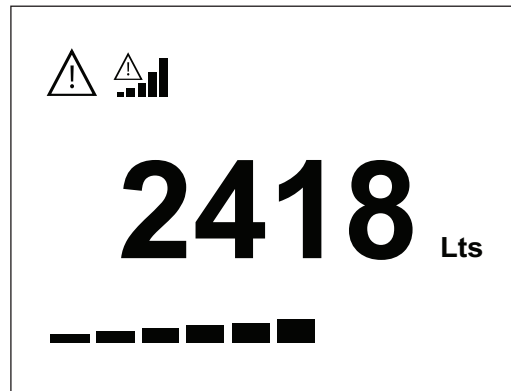


Figure 4: LCD – Level Alarm

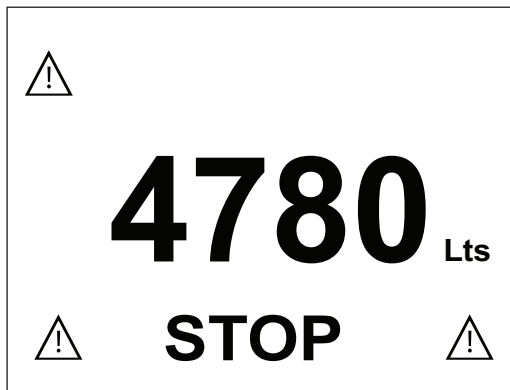


Figure 5: LCD – Overfill Alarm

OVERFILL ALARM

- This indicates the level in the tank is high and must be stopped being filled immediately. This Overfill Alarm mode will be activated at a level of 4700 litres and above. An Alarm LED will light and a buzzer will sound also for 5 minutes.

Note: The tank volume will be flashing for 5 minutes. After 5 minutes the word 'Stop' will be replaced with a bargraph, has per the normal screen.

LEAK ALARM

- A leak from the tank has been detected. The buzzer will sound and Alarm LED will light. The buzzer will stop after 5 minutes, but the LED will remain lit.
- Check to see if bund area is wet. Once bund area is emptied, the LED will turn off and the LCD will revert back to the main screen.

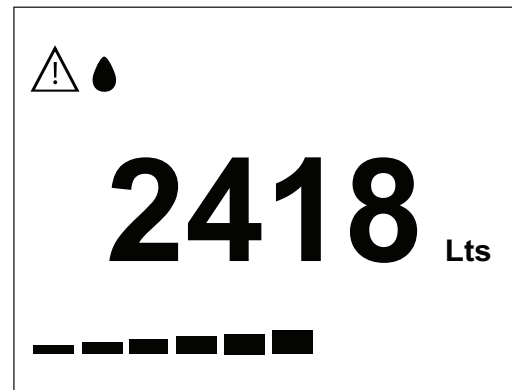


Figure 6: LCD – Leak Alarm

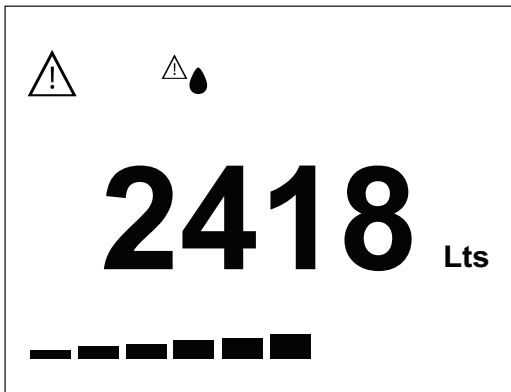


Figure 7: LCD – Leak Error Alarm

LEAK ERROR ALARM

- A fault has been detected with the leak detector. The buzzer will sound and the alarm LED will light.

DIMENSIONS	HEIGHT: 310mm WIDTH: 358.5mm DEPTH: 114.7mm	
MATERIAL	ABS	
AMBIENT TEMPERATURE	-20°C to +60°C	
SUPPLY VOLTAGE	230 V ac	
ELECTRICAL CONNECTIONS	High voltage:	Low voltage:
	2 and 3 way connectors 5.08 pitch	2 way and 20 way connector 3.5 pitch, jack connector – 3 pole, 3.5mm, 1A jack socket
INPUTS	High voltage:	Low voltage:
	power supply 230 V, thermostat 35°C, thermostat –8°C	ultrasonic input (3 V),4 - 20 mA, flowmeter input (91 impulses/ litre), thermistor 10k, leak sensor, pistol, MC Box signal
OUTPUTS	High voltage (230 V):	Low voltage:
	fan 1, fan 2, pump, house heater, tank heater, MC Box, light	impulses out (100 impulses/litre), open collector,12 V dc

INTERFACE	jack connector – 3 pole, 3.5mm, 1A jack socket
DISPLAY	128x64 graphic LCD, blue
LEDS	Green – power, Red – alarm
OPERATION	switch, emergency button
BUZZER	12 V dc
CIRCUIT BREAKERS	fans - 6A, pump and MC Box - 6A, house heater 10A, tank heater and lamp - 16A