

## INSTALLATION INSTRUCTIONS (-LPC)

Read and understand all instructions before installation and use.

### • Sensors

Find suitable positions for the sensors (see below). The sensor cables can be shortened or extended as necessary.

**LPG & Petrol Vapour Sensors:** Since LPG and petrol vapour are heavier than air, sensors should be sited low down (about 30cm above the floor is ideal). The sensors are waterproof and so can be sited low in the bilge without fear of damage (although sensors will not detect gas when submerged).

**Carbon Monoxide Sensor:** Carbon monoxide is similar in density to air and freely mixes with air. It is recommended that the sensor is sited at a mid to high level.

The sensors can either be surface mounted (using the sensor spacers provided) or flush mounted.

**Surface mounting:** Pass the sensor cable through the square sensor spacer. Use the 2 longer screws provided to screw the sensor and spacer to a suitable panel.

**Flush mounting:** Drill a hole (26 to 27mm diameter) for the main body of the sensor in a suitable panel. Use the 2 smaller screws provided to screw the sensor in position. The longer screws and square sensor spacer are not required when flush mounting.

### • Control Panel

The control panel can be either flush or surface mounted. Do not stick the front label to the control panel until all connections have been made and the operation of the system has been checked.

**Surface Mounting:** Screw the mounting bracket to the surface with the 2 pan-head screws provided. Once all electrical connections have been made, the rectangular spacer is held in position and the control panel screwed to the bracket with the 4 shorter countersunk screws.

**Flush Mounting:** Use the "Stick-on Fitting Template" as a guide to cut the required hole for the control panel. Once all electrical connections have been made, the 4 longer countersunk screws are used to secure control

panel to the surface. The rectangular spacer and mounting bracket are not required when flush mounting.

**Power Connections:-** Turn off the 12V/24V supply in the boat. The power connections to the control panel should be made via the fused connector block provided. The connector block is fused at 3 Amps and so the supply wires must be rated for this current. Connect the positive supply connection to the screw terminal marked "+12/24V" and the supply return/ground connection to the screw terminal marked "GND"

**Sensor Connections:-** Connect the sensor cables to the corresponding screw terminals in the control unit marked "Red, Black, Yellow, Blue". Ensure that the coloured wires of the cable correspond with the screw terminal colour markings. For systems with more than one sensor, each sensor must be connected to a different screw terminal block. Double check that the sensor types correspond with those marked on the adhesive label (ie "Sensor 1" terminal block corresponds with left alarm lamp. "Sensor 2" with middle alarm lamp and "Sensor 3" with right alarm lamp).

**Buzzer Output:-** The screw terminals marked "Buzzer" can be used to power auxiliary sounders. This is particularly useful if a louder or remote alarm sounder is required. Sounders driven from this output will be tested and hushed at the same time as the buzzer fitted in the control panel. . As the control unit is fused at 3A, the wires to the sounder should be rated at 3A.

**Relay Output:-** The screw terminals in the control unit marked "RLY" are the alarm relay contacts. "COM" is the relay common contact, "N/O" is the normally open contact and "N/C" is the normally closed contact. The alarm relay changes state when the system is tested or goes into the alarm condition. The relay is non-latching and so will automatically return to its original state when the system comes out of the alarm condition.

After all connections have been made, turn on the 12V/24V supply and check the system functions correctly. The adhesive label can then be stuck to the front of the control panel to complete the installation.