

Installation instructions for the patented ABERTAX® CLS SENSOR

ABERTAX® CLS with GAUGE GUARD

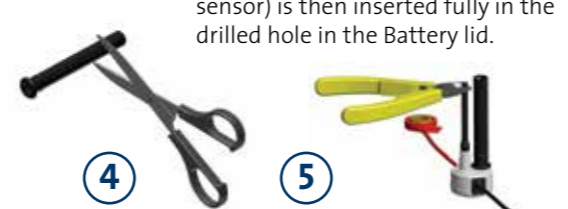
The warmest cell (the one in the middle) is first determined and a hole to install the sensor is drilled using the special drill provided.



The Gauge Guard is inserted in the hole till it touches the battery plates. The number of visible holes on the Gauge Guard are counted and it is then shortened by the same number of holes from below.



The Sensor probe is cut 2mm shorter than the shortened Gauge Guard. The Gauge Guard (without sensor) is then inserted fully in the drilled hole in the Battery lid.



The black wire is then connected to the minus terminal of the same cell into which the sensor will be installed.

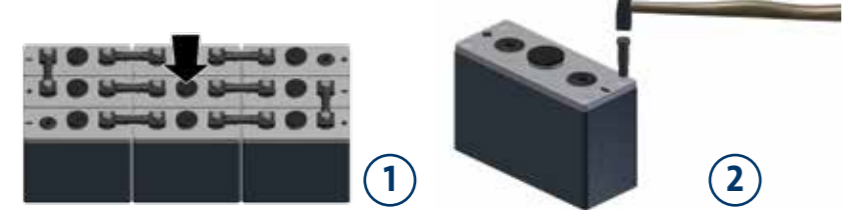


The red sensor wire is connected to the +ve terminal of the cell which is 6 cells up. The sensor will flash red. It is then inserted into the already installed Gauge Guard. It will light green if the electrolyte level is correct.

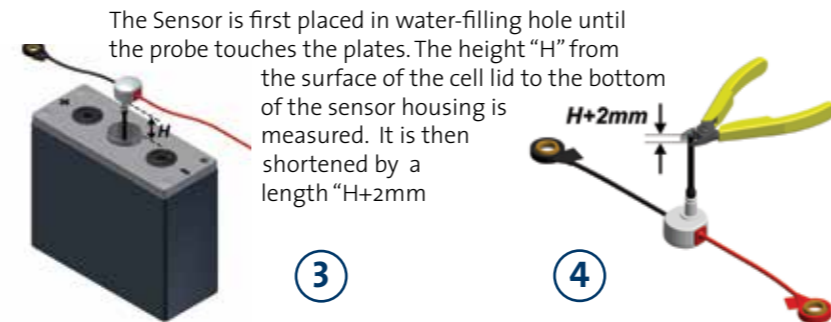


ABERTAX® CLS without GAUGE GUARD (with O-Ring)

The warmest cell (the one in the middle) is first determined. Its air-agitation hole closest to the -ve terminal is exposed by punching out its moulded-over protection cover.



The Sensor is first placed in water-filling hole until the probe touches the plates. The height "H" from the surface of the cell lid to the bottom of the sensor housing is measured. It is then shortened by a length "H+2mm".



SAME STEPS AS ABOVE – 6 AND 7 ARE THEN FOLLOWED WITH THE DIFFERENCE THAT THE SENSOR IS FINALLY INSERTED IN THE AIR-AGITATION HOLE INSTEAD OF THE GAUGE GUARD

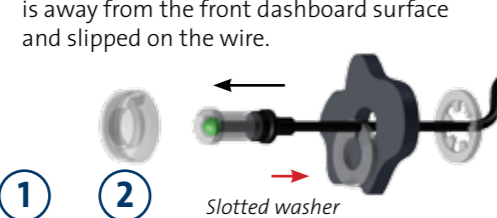


Fitting of LED External indicator on Dashboard

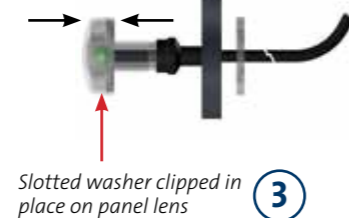
A 10.5mm hole is first drilled in the dashboard



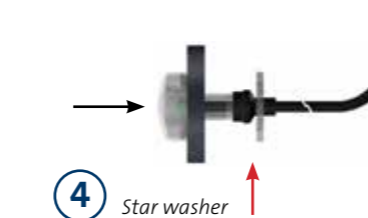
The L.E.D. is then inserted through the hole from the rear of the dashboard. The slotted washer is positioned such that its flat surface is away from the front dashboard surface and slipped on the wire.



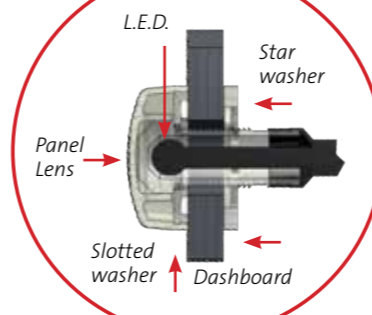
The slotted washer is then clipped on to the panel lens.



The whole L.E.D. assembly is then pushed towards the dashboard until it touches the surface.



The star washer is pushed towards the dashboard's rear surface until the whole assembly is tightly secured in place.



Remote LED between charger Cables

The L.E.D. holder is placed between the supply cables with the L.E.D. facing the battery charger plug and its label facing upwards as shown.



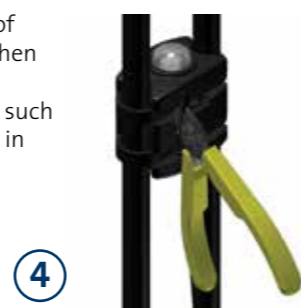
The cable ties are inserted in the slots on the side beneath the product label ensuring that the cable tie serrations are facing the cables.



The cable tie latches are next inserted in the slots and the cable ties guided around the Battery Charger Cables and through the latches. The cable ties are then tightened.



The extra lengths of the cable ties are then cut as close to the latches as possible such that the latches fit in the slots provided.



The L.E.D. cable is finally fastened to one of the supply cables using cable ties (not provided).



ELECTRICAL CONNECTIONS FOR BOLTED BATTERY CONNECTORS

ABERTAX® CLS with WLW (Washer with leading wire)

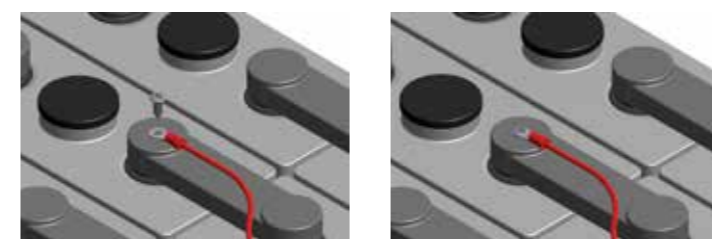
The WLW is placed on the connector of the cell, ensuring that its brass washer is in contact with the metal conductor of the Battery Connector. The terminal bolt is then tightened against the WLW and the terminal of the cell.



ELECTRICAL CONNECTIONS FOR WELDED BATTERY CONNECTORS

ABERTAX® CLS with Terminal Connections

The terminal connector is placed on the battery terminal and the self-tapping screw screwed in until tight. If a Battery terminal cover is present on the terminal, this should be removed first, so that the terminal connector is in contact with the exposed Battery terminal.



E1209-04-CLS

ABERTAX® CLS CAPACITIVE BATTERY ELECTROLYTE LEVEL SENSOR for all flooded lead acid batteries



DESCRIPTION

The New ABERTAX® CLS Capacitive Battery Electrolyte Level Sensor uses Patented Technology which allows numerous advantages over all other sensors on the market. Green light indicates that the electrolyte is at or above the specified minimum level. Flashing red indicates that the electrolyte is below minimum.

PRODUCT AND SAFETY FEATURES

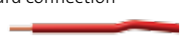



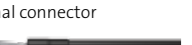
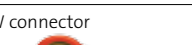





- Patented Technology that eliminates electrolytic corrosion between the probe and cell plates
- Easiest installation in the shortest time by qualified service personnel
- Allows installation in any of the 6 cells supplying the sensor
- Supply wires are fed from opposite ends of the sensor to eliminate wire loops and allow maximum isolation
- Protected against transient voltages
- Protected against over-current in all three possible paths
- Sensor not damaged by wrong polarity connection
- Protected against electro-magnetic interference
- Patented connector that ensures a perfect battery seal
- Connector designed for Bolted type of Batteries (WLW*); other connectors for Welded type also available
- Acid-resistant body with grommets to ensure a perfect seal between the wire and housing
- Sensor probe with GaugeGuard to protect probe from touching the separators

*WLW - Washer with leading Wire

Int. Patent Protection on all Products. Product made in the European Union.

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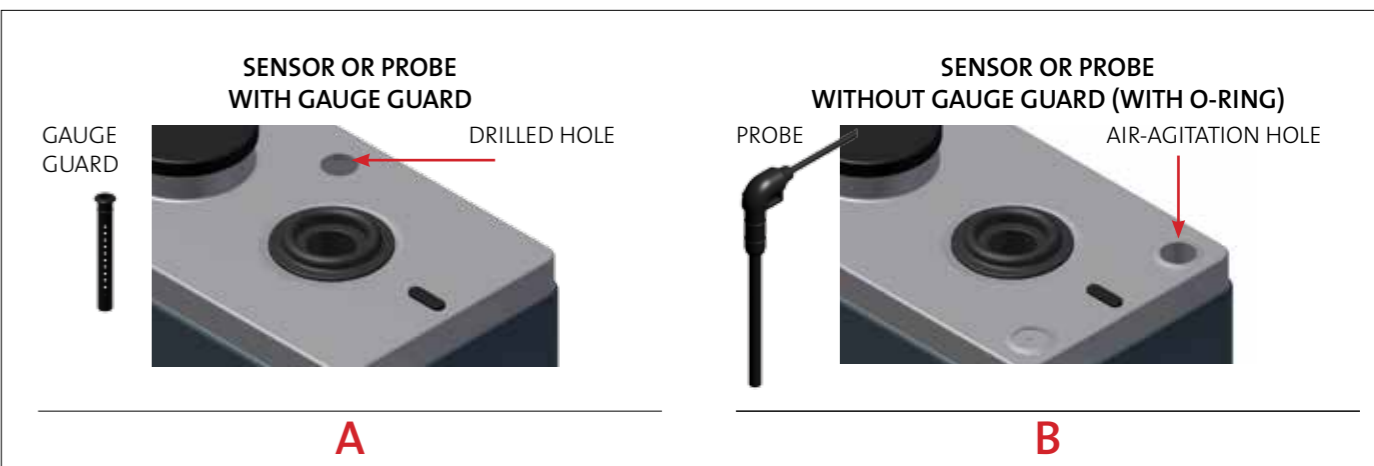


ABERTAX® CLS SENSOR TYPES Patented Technology	STANDARD SENSOR		SENSOR FOR MOUNTING BETWEEN CELLS		SENSOR FOR MOUNTING ON CABLE (with strapping Bracket)		MULTI LAYER SENSOR WITH EXTERNAL HOUSING BETWEEN CELLS		SENSOR WITH REMOTE LED AND LENS MOUNTED IN DASHBOARD		SENSOR WITH REMOTE LED MOUNTING BETWEEN CABLES	
	for drilled hole installation	air-agitation hole installation	for drilled hole installation	air-agitation hole installation	for drilled hole installation	air-agitation hole installation	for drilled hole installation	air-agitation hole installation	for drilled hole installation	air-agitation hole installation	for drilled hole installation	air-agitation hole installation
INSTALLATION	for drilled hole installation		air-agitation hole installation		for drilled hole installation		air-agitation hole installation		for drilled hole installation		air-agitation hole installation	
CABLE END	for drilled hole installation		air-agitation hole installation		for drilled hole installation		air-agitation hole installation		for drilled hole installation		air-agitation hole installation	
Standard Probe 77 mm	A	B	A	B	A	B	A	B	A	B	A	B
standard connection 	55 71 01 01 002	55 72 01 01 00E	55 73 06 01 00Y	55 74 06 01 00A	55 73 05 01 00Q	55 74 05 01 002	55 71 06 01 008	55 72 06 01 00L	55 71 04 01 00S	55 72 04 01 004	55 71 07 01 00G	55 72 07 01 00U
terminal connector 	55 71 01 02 006	55 72 01 02 00J	55 73 06 02 002	55 74 06 02 00E	55 73 05 02 00U	55 74 05 02 006	55 71 06 02 00C	55 72 06 02 00Q	55 71 04 02 00W	55 72 04 02 008	55 71 07 02 00L	55 72 07 02 00Y
WLW connector 	55 71 01 03 00A	55 72 01 03 00N	55 73 06 03 006	55 74 06 03 00J	55 73 05 03 00Y	55 74 05 03 00A	55 71 06 03 00G	55 72 06 03 00U	55 71 04 03 000	55 72 04 03 00C	55 71 07 03 00Q	55 72 07 03 002
Long Probe 127 mm	A	B	A	B	A	B	A	B	A	B	A	B
standard connection 	55 21 01 01 00E	55 22 01 01 00S	55 23 06 01 00A	55 24 06 01 00N	55 23 05 01 002	55 24 05 01 00E	55 21 06 01 00L	55 22 06 01 00Y	55 21 04 01 004	55 22 04 01 00G	55 21 07 01 00U	55 22 07 01 006
terminal connector 	55 21 01 02 00J	55 22 01 02 00W	55 23 06 02 00E	55 24 06 02 00S	55 23 05 02 006	55 24 05 02 00J	55 21 06 02 00Q	55 22 06 02 002	55 21 04 02 008	55 22 04 02 00L	55 21 07 02 00Y	55 22 07 02 00A
WLW connector 	55 21 01 03 00N	55 22 01 03 000	55 23 06 03 00J	55 24 06 03 00W	55 23 05 03 00A	55 24 05 03 00N	55 21 06 03 00U	55 22 06 03 006	55 21 04 03 00C	55 22 04 03 00Q	55 21 07 03 002	55 22 07 03 00E
SUITABLE FOR	 ALL DIN BATTERIES ALL BS BATTERIES > 3PzB CELLS		 ALL DIN AND ALL BS CELLS		 DOUBLE LAYER		 LED Indicator LED INSTALLED IN TYPICAL DASHBOARD See overleaf for instructions		 REMOTE LED INSTALLED IN SPECIAL HOUSING BETWEEN THE CABLES. See overleaf for instructions			

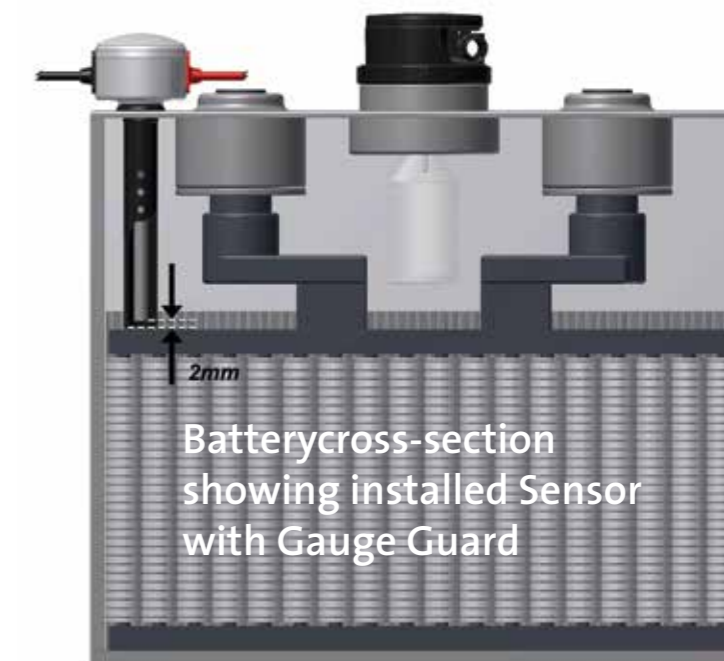
Other sensor types are available – please ask for the complete list.

Patent Protection on all Products

INSTALLATION ON BATTERY



For correct Sensor type refer to selection table on left.
For installation Instructions see overleaf



MECHANICAL CONSTRUCTION

The New Patented Abertax® CLS (Capacitive Level Sensor) has an acid-resistant housing with grommets for a perfect seal between the wire and housing. To ensure an accurate installation of the Sensor, only the special Abertax drill should be used.

The Gauge Guard has three functions:

- Protection of the Probe from touching the plate separators in the Battery.
- Provision of a good seal between the Probe and the Battery lid.
- Ensuring the correct length of the Sensor probe.

The Probe can be installed in any cell between the supply Voltage Cells.

TECHNICAL SPECIFICATIONS

Supply Voltage	12V (6 x 2V cells)
Current Consumption	< 20mA
Operation temperature range	-25°C.....+80°C

In the interest of product development, the manufacturer reserves the right to modify specifications.

