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Buy Oxygen Sensors for WBo2



LSU- Main **Sensors** Placement Operation Bosch (PDF) Connectors Conn Kits Cables More...

Tech Edge sells a number of wideband sensors that work with our own controllers. We also sell sensors that work with other manufacturer's controllers - such as the LSM-11 that works with the Autronic controller, and the 6066 that works with the MoTeC controller. Go here for the main LSU sensor page which describes sensors we don't sell.

Some of our controllers work with the **NTK UEGO** range of sensors. We **DO NOT sell** any **NTK** sensors. Go here for WBo2 connector kits, or LSU connector wiring info. Another important topic is correct sensor placement for best results and longest sensor life. We also have info on how wideband pump cell sensors work. We sell M18x1.5 sensor bungs too.

Buy Bosch LSU 4.0/4.2/4.9 Sensors

Our controllers work with 5-wire Bosch LSU sensors.

Note (*): The 7057* sensor is an older version of the 7200. If you order the 7057* we will ship the 7200 sensor.



Buy 17123 LSU-4.9 (short) v wideband LSU 5 wire sensor at AU\$110.00/ea quantity: 1 ... Add to Cart

Go here for to <u>purchase sensor-to-controller cables</u> and further cable information.

Summary of Bosch and NTK Wideband sensors

The lead lengths of 5 sensors Tech Edge sells is shown in the image at right. The full part numbers for these sensors, and other NTK sensors is shown below.

- 06 066 -- Bosch # 0 258 006 066, LSU 4.0, GM # 24450850. (12" = 300 mm)
- 07 057 -- Bosch # 0 258 007 057, LSU 4.2, Audi/VW # 021-906-262-B. (24" = 600 mm)
- **07 200** -- Bosch # **0 258 007 200**, LSU 4.2 upgrade of 7057 sensor. (20" = 500 mm)
- 17 025 Bosch # 0 258 017 025, LSU 4.9 for accurate lean burn readings. (33" = 830 mm)
- 17 123 Bosch # 0 258 017 123, shorter version of 17 025. (13" = 330 mm)
- LSM-11 -- Bosch # 0 258 104 002 Legacy, narrowband 4 wire sensor!
- NTK # L1H1, L2H2 or Honda # 36531-P07-003 note: we do NOT sell this item

Bosch LSU Sensors - 6 066, 7 057/7 200 & 17 123, 17 025

The four sensors 6 066, 7 057/, 7 200 & 17 123/5 are Bosch LSU wideband pump cell sensors. They are described in more detail in the special LSU section and they are all sold by Tech Edge. WBo2 was specifically designed around the LSU sensor and all relevant Bosch operating conditions (including the exacting "light off" warm-up characteristics) are rigorously observed. The 06 066 sensor is normally called an LSU 4.0 (although some documentation calls it an LSU 4.2), and the 07 057 & 07 200 are LSU 4.2 variants. The 17 123 and 17 025 are LSU 4.9 sensors which is designed to work well in diesel and lean burn applications.

One major difference between these sensors is the "head" design that is fairly open in



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the **6066** but is more restricted in the **7057** & **7200** sensors. An open head results in faster Lambda sensing, but also make the internal pump cell more sensitive to exhaust gas temperature variations, with the possibility of over-heating or under-cooling if the sensor is located closer of further from the optimal position. In general, we recommend the lower cost **7057** & **7200** over the **6066**.







Another important difference with these LSU sensors is the connector itself. The flat 6 pin **6066** is different to the 2 by 3 pin rectangular **7057** & **7200** connector. More connector <u>information here</u>.

NTK/Honda UEGO Sensors & the NTK-VW sensor

The **L1H1**, **L2H2** & **NTK-VW** sensors are **NTK/Honda UEGO** wideband pump cell sensors. The name **UEGO** is traditionally associated with this range of sensors, and stands for **U**niversal **E**xhaust **G**as **O**xygen. They were co-developed by Honda & **NTK** (the speciality ceramics division of **NGK**) and first appeared in the early 1990s on Honda 1.5 Litre engines. Heere's some more information relating to the older <u>Tech Edge</u>1.5 unit the L1H1 sensor. They predate the Bosch LSU sensor but, apart from the higher price Honda seems to want to maintain, are still good sensors. Just to confuse you, Bosch source the L1H1 sensor from NTK and package it as their (USA 5-digit part number) **13246** sensor.

Are NTK sensors better? Tech Edge does NOT sell and has NEVER sold the L1H1 or the updated L2H2 NTK sensors. We believe that there is still a lot of incorrect and misleading information floating around about these, now quite old, NTK sensor designs. The misinformation suggesting they are superior and more accurate than the Bosch sensors. We believe that back in 1995, when Bosch had their 4-wire narrowband sensor they called a wideband, and Honda/NTK had their very expensive L1H1 design, there may have been a glimmer of truth. But by 2005, with sales of Bosch 5-wire sensors exceeding those of NTK by orders of magnitude, it was clear the rumours had been quashed.

Remember that the version **1.0** and **1.5** *Tech Edge* units described in the next link use a design that is over 10 years old (as of 2010). We still have many happy customers who still use our original units. But remember that any of our designs we have produced since 2003 that use the Bosch sensor will be more accurate, more readily repairable, and replacment sensors are inexpensive compared to these old designs. There is more L1H1 information here.

Bosch LSM-11 "Wideband" Sensor

Tech Edge also sells the **LSM-11** (Bosch part #0 258 104 002). This sensor is **not** a wideband sensor (in the true sense of the pump cell sensors) but has been used with controllers described as wideband controllers. Here is some Bosch on-line information on the LSM-11 (PDF format). Many older "wideband" controllers use the LSM-11 including Autronic and MoTeC controllers.





LSM11 @ AU\$295.00/ea

⇒ LSM-11 Genuine (4 wire
N/B) sensor.

→ 367 grams

Qty: 1 Add to Cart

Tech Edge sells the **LSM-11** only because there is a demand for it from users who have legacy equipment. We don't recommend people use this sensor when accurate and robust LSU sensors are now so inexpensive, often costing one fifth the price of the LSM-11.

Sensor Bung - M18x1.5 threaded sleve + stopper

Most oxygen sensors, either narrowband or wideband, use the **metric M18** thread size with a **1.5 mm/turn pitch** (called **M18x1.5** thread). We sell a weld-in adapter, which is often called



a **bung**; it is a *mild-steel* **sleve** that is welded over a hole cut into an exhaust pipe. Our bung comes with a **stopper** with a **19mm** hex nut top, that is used to protect the bung's threads during welding and when the sensor, which is normally in the bung, is removed and the bunghole must be closed.



Our bug is designed to fit into a **25mm** hole in an exhaust (it has a **26mm** outside diameter and a **24.5mm** lip at the weld end). It has a finished height of **10mm** above the exhaust with a total height of **11.8mm** (ie. the lip is **1.8mm** deep).





More info ...

More information on how 5-wire sensors work can be found here. Here is the main LSU page. Advanced LSU info here.



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