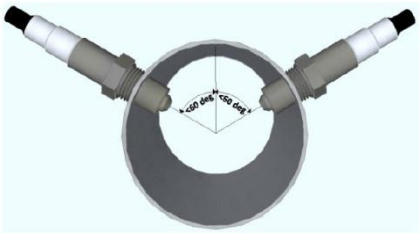
# SC Compact Wideband Lambda Sensor Instructions

## Package Contents

• 1x SC Compact Wideband Lambda Sensor
• 1x Fuse holder
• 2x 5amp Fuses (Extra Supplied as a Spare)

## Exhaust Installation

• The sensor must be installed before the catalytic converter.
• Installing the sensor too close to the engine exhaust port may overheat the sensor, installing the sensor too far from the exhaust port may leave the sensor too cool, both will cause damage to the sensor and lead to wrong measurements.



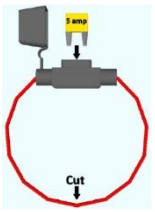
• For normally aspirated engines the sensor should be installed about 60cm (2ft) from the engine exhaust port.
• For Turbocharged engines the sensor should be installed about 90cm (3ft) from the engine exhaust port after the turbocharger.
• For Supercharged engines the sensor should be installed about 90cm (3ft) from the engine exhaust port.
• SC Compact Wideband Lambda Sensor should be installed between the 10 o'clock and the 2 o'clock position, less than 60degrees from vertical; this will allow gravity to remove water condensation from the sensor.

## Wiring

| Wire Color | Name | Connects to | Note |
|---|---|---|---|
| Red | Power | Switched 12[v] | Use fuse holder, 12[v] should be live only when engine is running |
| Black | Electronics Ground | Ground | Ground where interfacing device is grounded |
| White | Heater Ground | Ground | Ground to chassis or engine block |
| Green | Linear Output | Interfacing device; ECU/Gauge/datalogger/etc... | 0[v] @ 0.68 [Lambda] Linear to 5[v] @ 1.36 [Lambda], equivalent to 10-20 [AFR] for gasoline fuel |
| Brown | Simulated Narrowband Output | Stock ECU if Lambda sensor replaces stock Narrowband sensor | Stops Stock ECU from throwing out a Check Engine Light when Narrowband sensor is not detected. Switch point @ 1 [Lambda], equivalent to 14.7 [AFR] for gasoline fuel |

## Fuse

Insert 5 amp fuse into fuse holder, cut wire at midpoint, and secure lid. One end of the fuse holder connects to the red wire on the grey cable, the other end of the fuse holder connects to a switched 12[v] source.




## Warning

• The SC Compact Wideband Lambda Sensor gets very hot during normal operation, be careful when handling it.
• Do not install SC Compact Wideband Lambda Sensor in such a manner that the unit is powered before your engine is running. An engine start can move condensation in your exhaust system to the sensor, if the sensor is already heated this can cause thermal shock and cause the ceramic internals inside the sensor to crack and deform.
• While SC Compact Wideband Lambda Sensor is in an active exhaust stream, it must be powered. Carbon from an active exhaust can easily build up on an unpowered sensor and ruin it.
• SC Compact Wideband Lambda Sensor life when used with leaded fuels is between 100-500 hrs. The higher the metal content the shorter the life of the Lambda sensor.
• Warranty does not cover usage with leaded fuels.

## Warranty

Specialist Components warrants our Compact Wideband Lambda Sensor to be free from defects for 3 months for use with unleaded fuels, use with leaded fuels will void any warranty.

## Disclaimer

Specialist Components is liable for damages only up to the purchase price of its products. SC products should not be used on public roads.

| V | AFR |
|---|---|
| 0 | 10 |
| 1 | 12 |
| 2 | 14 |
| 3 | 16 |
| 4 | 18 |
| 5 | 20 |

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