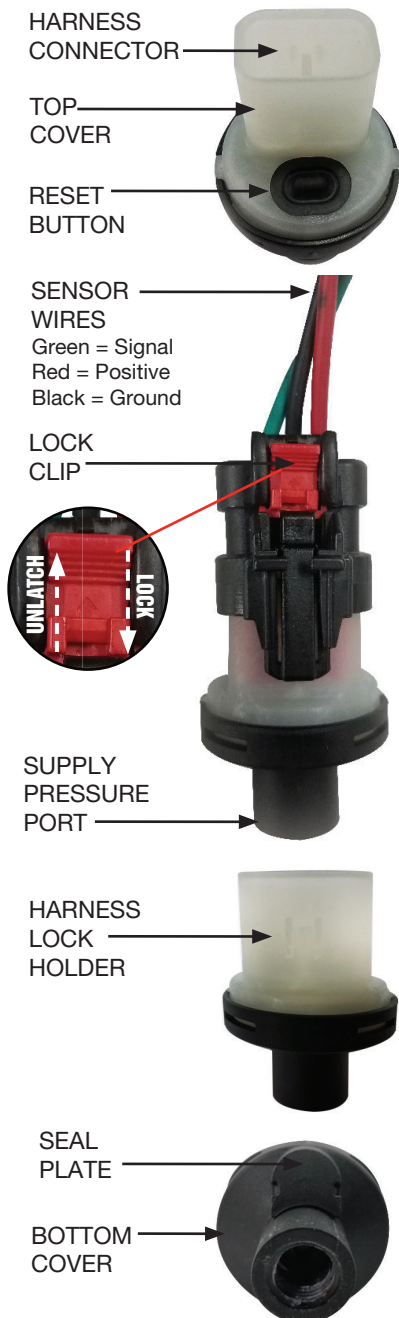


Overview

The LED Air Restriction Sensor is an electro-pneumatic light-indicating sensor installed on the air intake filter housing in order to detect air filter clogging conditions. The GREEN, YELLOW, and RED lights indicate whether the filter is clean, partially loaded, or needs servicing.



Basic Functions:

- Sensor mounts directly to the Air Cleaner (1/8 to 27 NPT female)
- Upon installation, a black reset button is provided to reset the sensor at each filter change when pushed
- Sensor changes colors based on filter loading restrictions

Specifications

Parameter	Rating/Feature
Supply Voltage:	5.00-14.00 Vdc @ ± 5% (regulated); 150mA Max supply current
Output Voltage:	5.00-12.00 Vdc (for 4.75V to 5.25V) Ratiometric
Output Impedance:	Minimum load resistance: 5/.04 mA =125 Kohms 250 Ω max
Output Current:	0.040 mA max
Overvoltage of 40V:	45 V momentary contact
Reverse Polarity of 36V:	36 V momentary contact
Electrical Connection:	AMPSEAL 16 (3-way)
Pressure Connection Port:	1/8 - NPT (F)
Operating/Storage Temperature Range	-35 to 85C
Vacuum Range:	0-40" H ₂ O (0-10 kPa)

⚠ CAUTION: These instructions are for use by professional mechanics who are trained in the proper use of power and hand tools, using appropriate safety precautions (including eye protection).

Installation

Wiring diagrams are different across applications, so the information in this section is intended to serve as a general guide. Existing customizations could also make it easier to obtain more power from some engines than from others.

1. Find the ignition/key switch fuse from the drawing on the fuse box cover to provide auxillary power.
2. With a piggy back fuse holder, connect the power cable of the connector to the ignition power/auxillary power.
3. Connect the ground/black cable to the chassis ground of the vehicle.

⚠ CAUTION: Do not connect wiring to the vehicle battery directly, as it may cause the battery to drain and subject the sensor to severe power transients.



Figure 1: Engine Installation

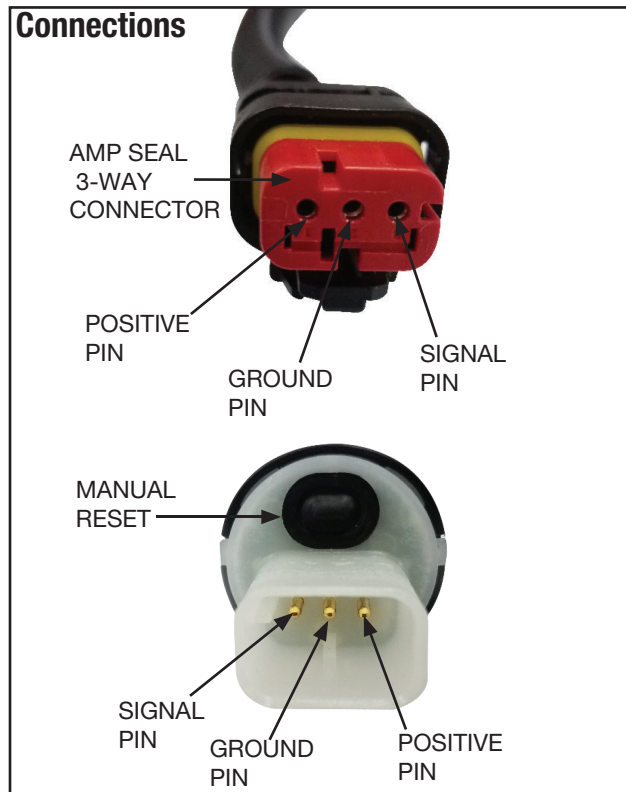


Figure 2: Connection Views

LED Color Indications



Figure 3: LED Color Indications

LED Color Indication Schemas		
COLOR INDICATION	PART # SK15959	PART # SK15960
SOLID GREEN (with 5 sec delay)	0-16" H ₂ O	0-13" H ₂ O
SOLID YELLOW (with 5 sec delay)	16-20" H ₂ O	13-17" H ₂ O
BLINKING YELLOW (with 5 sec delay)	20-25" H ₂ O	17-21" H ₂ O
SOLID RED (with 5 sec delay)	Above 25" H ₂ O	Above 21" H ₂ O
BLINKING RED (with 5 sec delay)	Miswiring/Sensor Failure	Miswiring/Sensor Failure
RESET (with 5 sec delay)	Time R-Y-G	Time R-Y-G

Figure 4: LED Color Schemas

Color Latch

The LED color is to latch at the maximum restriction observed with the delay timer logic. The automatic color change is only to happen in ascending restriction order. For latch release, the manual reset is to be used. See Figure 2.

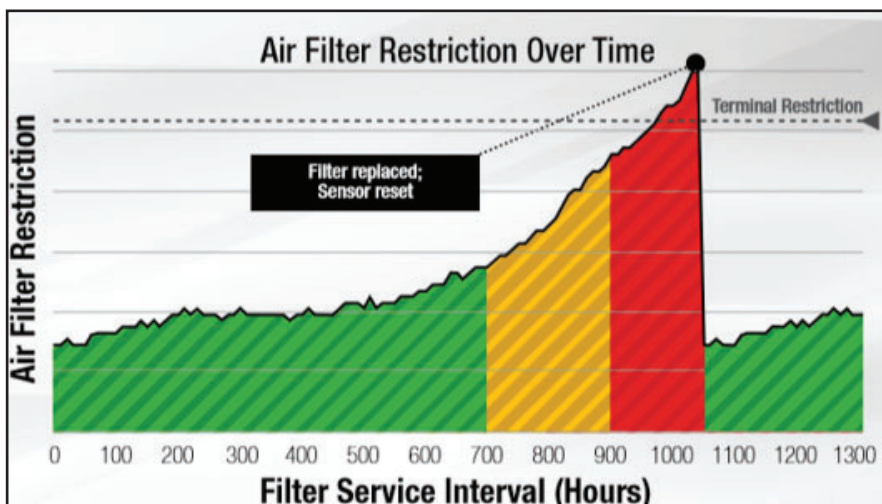


Figure 4: Restriction Over Time vs Filter Service Hours



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