



MADE IN KOREA

The Excellent Company  
Brand of Seoul



# KOENG Emission Analyzer

## KEG-500 AND OP-201

For Gasoline and Diesel engines

CE

Opacity meter

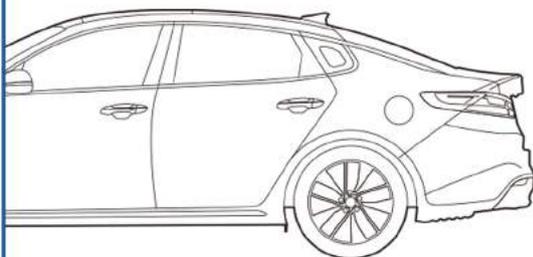


OP-201

Gas analyzer



KEG-500



Smoke meter



DS-3000

# Automotive gas analyzer

## KEG-500 (4GAS/5GAS)



## Features

- CE certified
- Outstanding accuracy, stability and durability
- NOx measurement upgradable (optional)
- Temporary pause to measurement (Hold function)
- Portable (compact size, light weight)
- Extra filters and printer paper
- Compatible with chassis dynamo and engine tune-up
- Durable Performance that has passed a severe cold test at  $-10\text{ }^{\circ}\text{C}$
- Automatic Temperature Adjustment (2~8 min)
- 6 LED Display Windows
- CO, HC, CO<sub>2</sub>, O<sub>2</sub>,  $\lambda$ , NOx measurement
- Built-In Printer
- Time and Date Display Option when using printer
- RS232 PC Program (optional)
- Suitable for professional engine tune-ups
- Suitable for professional auto smoke testing shops

## KEG-200 (2GAS)



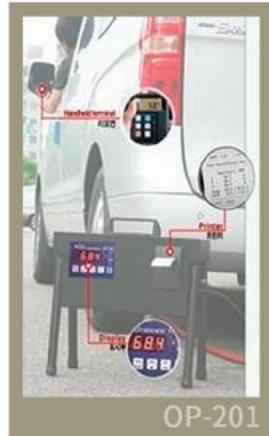
| Model              | KEG-500(5GAS, 4GAS)  |              | KEG-200(2GAS)   |               |
|--------------------|--|--------------|-----------------|---------------|
| Measuring gas      | CO, HC, CO <sub>2</sub> , O <sub>2</sub> , (air surplus rate), AFR, NOx (optional)   |              |                 |               |
| Measuring method   | CO, HC, CO <sub>2</sub> : Non-Dispersive Infrared Analysis (NDIR)<br>O <sub>2</sub> , NOx: Electrochemical Cell  |              |                 |               |
|                    | CO   | HC           | CO <sub>2</sub> |               |
| Measuring range    | 0.00 ~ 9.99%   | 0 ~ 9999 ppm | 0.0 ~ 20.0%     |               |
| Resolution         | 0.01%  | 1 ppm        | 0.10%           |               |
|                    | O <sub>2</sub>   | $\lambda$    | AFR             | NOx           |
| Measuring range    | 0.00 ~ 25.00 %   | 0 ~ 2,000    | 0.0~99.0        | 0 ~ 5,000 ppm |
| Resolution         | 0.01%  | 0.001        | 0.1             | 1ppm          |
| Display            | 4 digit 7segment LED   |              |                 |               |
| Repetition Rate    | Less than 2% FS  |              |                 |               |
| Response time      | Within 10 seconds (90% of the time)  |              |                 |               |
| Preheat Time       | Approx. 2~8 minutes  |              |                 |               |
| Flow rate          | 4 ~ 6 L/min  |              |                 |               |
| Power              | 220V / 110V AC, 50/60Hz  |              |                 |               |
| Power consumption  | Approx. 50W  |              |                 |               |
| Operation Temp     | 0 ~ 40 °C  |              |                 |               |
| Dimensions         | 285 (W) x 410 (D) x 155 (H) mm   |              |                 |               |
| Packing size       | 530 (W) x 400 (D) x 350 (H) mm   |              |                 |               |
| Weight (Net/Gross) | Approx. 4.5 kg / 12.5 kg   |              |                 |               |
| Basic Accessories  | Probe, Probe hose, Spare fuse, Leak test cap, Spare filter, Operation manual, Power cord, Ground cable, Calibration controller nipple, Calibration connecting hose |              |                 |               |
| Option             | Printer, Printer paper, PC program, Communication cable (2gas optional)  |              |                 |               |

## Features

- Portable (compact size, light weight)
- Outstanding accuracy, stability and durability
- Response time of less than 10 seconds
- Stand-by for low power consumption when unit is not in use
- Automatic adjustment of warming-up time (2-8minutes.)
- Two LED indicators
- Extra filters and printer paper
- Elegant and simple appearance

# Opacity meter / Diesel smoke tester

## OP-201



## Features

- Real-time smoke measurement(% , k [m<sup>-1</sup>])
- Portable and LED display
- Outstanding accuracy, stability and durability
- Response time of 0.5 second
- Smoke, SOF measurement
- Easy to use with handheld terminal(option)
- Built-in printer(option)
- RS232C PC program
- RPM/ Oil temp. meter(option)
- Auto-Zero/ Span calibration function

## Specification

|                    |  |
|--------------------|--|
| Model              | OP-201   |
| Measuring items    | Smoke opacity ( % , k [m <sup>-1</sup> ] ) RPM (option), ° C (option)                  |
| Principle          | Light extinction method (Partial-flow sampling type)                                   |
| Light source       | Green LED(565nm)   |
| Detector           | Photo diode  |
| Range              | 0.0~100.0% (0.00~21.42m <sup>-1</sup> )  |
| Accuracy           | Less than 1%   |
| Warm-up time       | 3~6 minutes  |
| Display time       | 4 times /sec   |
| Power              | 220V / 110V AC 50/60Hz   |
| Temperature        | -10~40°C   |
| Dimension          | 450(W) x 200(D) x 245(425)(H) mm   |
| Packing size       | 470(W) x 380(D) x 300(H) mm  |
| Weight (Net/Gross) | 7 kg / 10 kg   |
| Option             | RPM/ Oil temp. meter, Handheld terminal, Built-in printer, Standard filter, PC program |

## Installation and measurement OP-201

- Single unit of the analyzer covers the display and the printing of measured value that are recorded in its main body, and can be easily hand-carried.
- No more than one tester operator behind the wheel would be enough to conduct the free acceleration test to obtain the measured value stepping on the accelerator and using wired or wireless handheld terminal.
- In supply of diversified basic PC software: PC program are provided in the way to cover regulations from various countries and also ramified for user's purposes such as governmental agency's use, inspection or repair of vehicle.

## DS-3000



## Features

- Convenient operation & extraordinary measuring accuracy .
- Solidly made goods & convenient to carry.
- Convenient operation for one person with cable remote controller.
- Convenient to use due to all functions are automatic except for transfer of measuring paper.
- Convenient measurement by adopting computerized ZERO Calibration function

## Specification

|                      |                                     |
|----------------------|-------------------------------------|
| Model                | DS-3000                             |
| Input Power          | AC 220V(200 - 240V) , 60HZ          |
| Preheating Time      | Within 3 minutes                    |
| Display Method       | Digital Mode                        |
| Tolerance            | ± 2%                                |
| Measurement Method   | Filter paper infrared reflection    |
| Response Speed       | Response up to 90% within 2 seconds |
| Reality              | ± 2% of Maximum Scale               |
| Repeat               | ± 1% of Maximum Scale               |
| Scope of measurement | 0 ~ 100 %                           |
| Density              | Minimum scale : 0.1%                |
| Induction time       | 1.4sec ± 2 Sec                      |
| Filter paper size    | 8 + 0.24 cm                         |
| Scope of Temperature | -10°C - 40°C                        |
| Proper air pressure  | 4 - 5kg / cm <sup>2</sup>           |
| Filter paper         | (circle) 5. A type                  |
| Dimension            | 330 x 220 x 170 mm                  |
| Weight               | 4kg                                 |

# Automotive Service Equipments



## PRODUCTS

All kinds of automotive service equipment(Maintenance equipment, Workshop and Garage equipment)

### 1. Automotive service equipment

- Car lift • Wheel Alignment • Wheel balancer • Tire changer • ATF changer • Carbon cleaner • Anti-freezer recycler • Engine coolant cleaner
- Engine flush machine • Airconditioning refrigerant recycling • Garage jack • Multi press • Engine crane • Transmission jack • Frame jack
- Welding machine & Battery tester • Diesel fuel injection pump tester • Common Rail Diesel Injector Tester • CRDi rebuild system
- Brake & drum lathe • Vehicle inspection equipment(Roller brake tester, Alignment side-slip tester, Speed meter, ABS measuring system)
- Head light tester • Spark plug tester • Tire inflator • Gas analyzer • Diesel smoke tester • Opacity meter

### 2. Automatic car washing machine, Car mat cleaner, Steam car washer

### 3. Education equipment & system

### 4. E-mobility items : E-bike, E-kickboard, E-wheelchair, E-motorcycle, Remodeling kit, Battery pack.