

# RADIO

**KIMAX 2 spring**



## Basic Radio Set includes:

Kimax 2 radio 1 SG + 1 x 2 SG input  
Part number 033300-01E0

1 x display unit, cabin  
1 x mounting frame + connection cable

Additional you must purchase:

1 x SG Sensor + extension cable for front axle  
2 x SG sensor + extension cable for parabolic springs

## Heavy duty Radio Set includes:

Kimax 2 radio 15G + 1 x 2 SG input  
Part number 033400-01E0

1 x display unit, cabin  
1 x mounting frame + connection cable

Additional you must purchase:

1 x SG Sensor + extension cable for front axle  
2 x SG sensor + extension cable for parabolic springs

- Current total load for the entire vehicle \*
- Total weight per tractor/trailer \*
- Current load on all individual axles
- Payload for the entire vehicle \*
- Payload per tractor/trailer \*
- Alarm for overload on individual axles
- Alarm for total weight on trailer
- All weights is displayed in tonnes

### Kimax 2 Radio fits your DIN slots

And offer you a load control of you vehicle, either as a solo instrument including interface for SG Sensors, or as a display instrument only, which needs contact to one or more Kimax 2 Sensors through the power line device bus, which can act on the existing electrical system on your vehicle.

- Using a microprocessor and built-in memory, Kimax 2 calculates the current loads from the current air pressure in the suspension system and displays this figure as a three-digit value.
- The Kimax 2 On-Board Load Control is an electronic weighing system which can be used in all vehicles whose axles or axle groups are equipped either with air suspension system or steel spring suspension system.
- Due to the modular construction, the product is very flexible and can be individually adapted to most vehicle conditions.

### .... and warns when limits are exceeded.

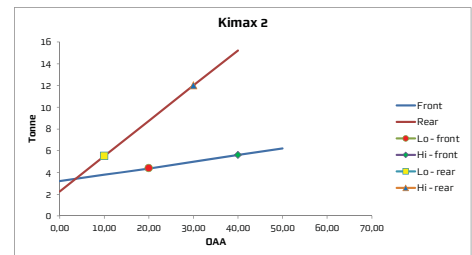
Kimax 2 has two separately adjustable alarm levels. Alarm 1 is indicated by a flashing diode for the individual axle which has exceeded its limit.

Alarm 2 switches in an internal electronic "relay" when the total weight for the vehicle is exceeded. The relay signal can be used as ON/OFF input for another unit, for example an FM 200 on-board computer or a tachograph.

Kimax 2 helps to achieve economical transportation, avoids fines and simultaneously optimizes the cargo weight.

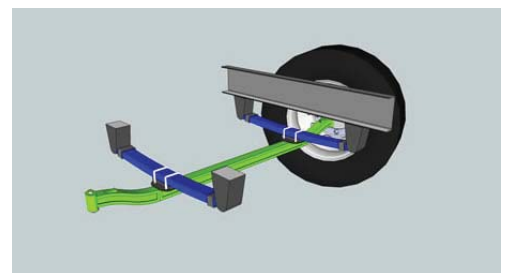
## Axle load measurement

Kimax 1 uses the linear interrelationship of the air pressure in the suspension system and the axle load: By using two reference points (empty weight and weight at maximum load) and the currently measured air pressure, Kimax 1 calculates the current axle load with an accuracy of 2 % of the maximum load.

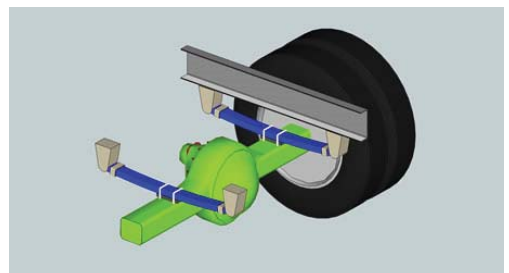


## Basic operation

The strain in the axle will increase linearly with the load above the axle, in case of two or three axles in a group, each axle must have its own SG sensor.

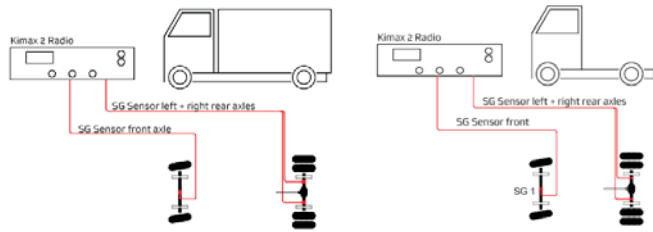


Through a SG Sensor applied on the middle of the front axle and two SG sensors installed either on the rear axle or installed on the parabolic springs for the rear axle it is possible to measure the axle load on the vehicles by a Kimax 2 display.



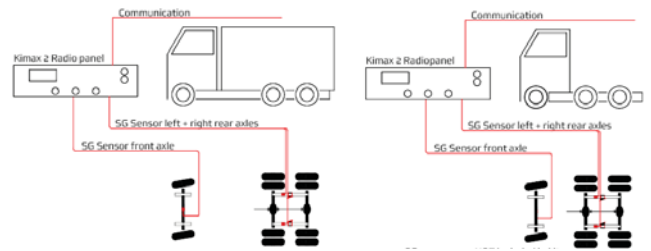
## Basic version with best accuracy

Light vehicles up to 7 ton gross weight offer you good accuracy by installing one SG sensor on the front axle and two SG sensors on the rear axle, one on each side of the differential gearbox



## Heavy duty version

For trucks intended for more than 7 ton we recommend to install one SG sensor on the front axle and two SG sensors on the rear axle springs, one on left side and one on right side spring.



## Axle configuration and sensors

In case of a dual group you must connect both sensors from the rear axle to same input on the Kimax 2 sensor.

In case of two independent axles you must connect each axle to its own input (measuring channel).

Kimax 2 calculates the current axle load on each axle / axle group from a set of reference values LO and HI for each axle / axle group.

- Using a single SG sensor on a front axle typically offer you the same accuracy compared with an front axle with air suspension.

## Optional versions:

Kimax 2 is exactly as flexible as your vehicle:

- Do you have a tractor equipped with steel springs on front axle and air suspension on rear axles combined with a lift axle? No problem!
- Do you have a truck with 2 front axles equipped with steel springs and two rear axles divided in left hand and right hand air circuits? No problem!
- Do you want to couple a trailer or semitrailer on the above vehicles? No problem!
- Do you want to couple a low bed trailer equipped with hydraulic suspension on a tractor equipped with air suspension? No problem!
- Do you want to swap from one trailer to another trailer? No problem!  
- Individual calibration values are stored in the Kimax unit on each vehicle.

## Associated units

- Kimax 2 Radio are able to communicate with both Kimax 2 Universal and Kimax 2 Sensor as input devices.
- Kimax 2 output units is RS-232 thermal printer or 433 MHz Wireless terminal.

Visit [www.kimax.com](http://www.kimax.com) for more details and informations.

## Technical Specifications

Supply voltage	10 ... 30 Volt direct current
Current consumption	max. 90 mA
Alarm 1	Flashing display
Alarm 2	output open collector NPN
	max. 0.2 A / 50 VDC
Display	Three-digits 7-segment LED, character height 20.3 mm
Measuring accuracy	± 2 % of maximum load at 0 °C - +50 °C
SG Sensor	0-20 mA input
On-board Computer	RS-232 serial
Printer	RS-232 serial
Device bus	Power line communication
Operating temperature	-25 °C...+70 °C
Storage temperature	-40 °C...+70 °C
Dimensions	182 x 53 x 75 mm
Weight approx.	550 g
Approval	CE and E1

## KIMAX 2

Kimax 1 and Kimax 2 are a series of high quality well proven on-board scales for use on trucks, buses and loading equipment. For detailed product selection guide please go to [Kimax.com](http://Kimax.com). Kimax 1 and Kimax 2 are registered trademarks owned by Sense-Tech Weighing Systems.

**Sense -Tech Weighing Systems are used all over the world. From the hectic harbours of Amsterdam to the dusty outback of Australia. And everywhere in between.**