

RADIO

KIMAX 2 air



Radio Set includes:

Kimax 2 radio 1 + 1x2 air
Part number 031200-0131

- 1 x display unit, cabin
- 1 x mounting frame + connection cable
- 3x angle fittings
- 3 x air pressure throttle dia. 6mm
- 3x T-fitting dia. Ø 8mm / 6mm / 8mm

Kimax 2 radio display and Kimax 2 sensor 1 + 1x2 air
Part number 030000-0140

- 1 x display unit, cabin
- 1 x mounting frame + connection cable
- Part number 051200-01B1**
- 3x angle fittings
- 3 x air pressure throttle dia. 6mm
- 3x T-fitting dia. Ø 8mm / 6mm / 8mm

- **Current gross weight for the entire vehicle ***
- **Gross 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 gross weight**
- **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 build in air sensors or as a display unit 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.

- 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 with air 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. Exceeding alarm level 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 a GPS tracking unit or a tachograph.

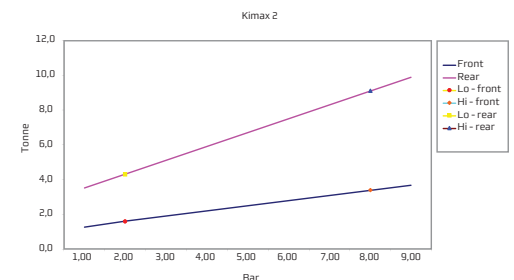
Kimax 2 helps to achieve economical transportation, avoids fines and simultaneously optimizes the cargo weight.

* Axle load/load of trailers call for a Kimax 2 sensor instaled on the trailer

Axle load measurement

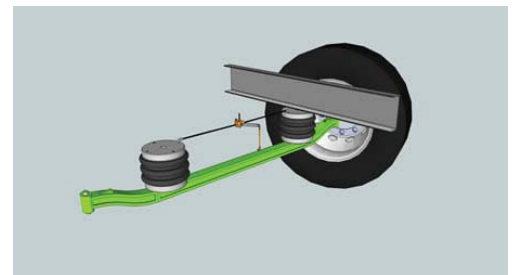
Kimax 2 uses the linearity between air pressure and load of the single axles.

By using two reference points for each axle (empty weight and weight at maximum load) and the currently measured air pressure, Kimax 2 calculates the current axle load with an accuracy of 2 % of the maximum load for each axle.

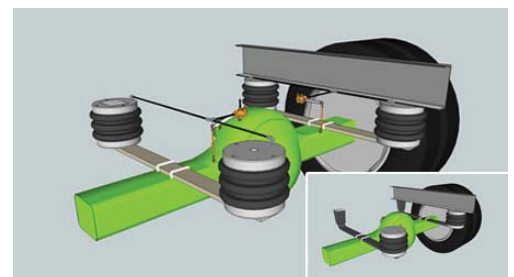


Basic operation

Depending on load of the vehicle, the level valve maintains a constant height of the chassis above ground surface by regulating the pressure in the air bellows.



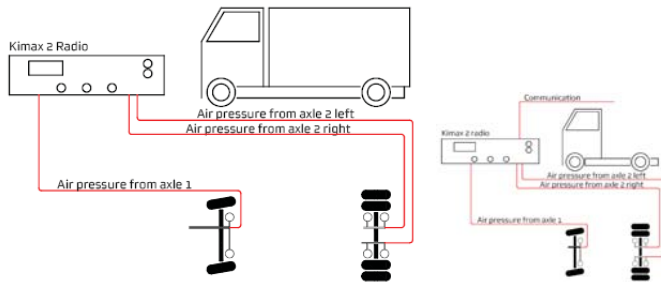
Front axle works typical with a single air circuit, the rear axle works typically with a dual air circuit



2-axle - less expensive system for best accuracy

Air tubes are routed into the cabin

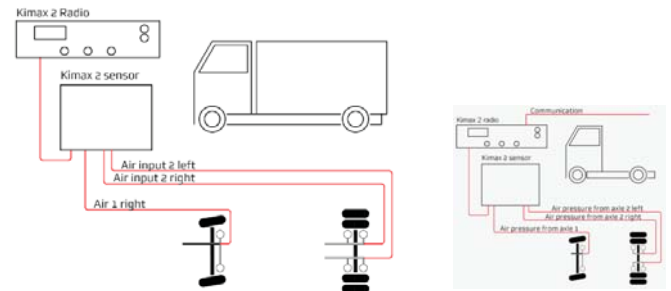
1 air sensor for the front axle and 2 air sensors for rear axle offer you the best accuracy. The influence of inclination or slightly uphill/downhill standing is partly compensated in this configuration, as well as weighing accuracy is unaffected on the distribution of goods loaded on the vehicle.



2-axle - easiest to install for best accuracy

No air tubes inside the cabin

1 air sensor for the front axle and 2 air sensors for rear axle are connected to Kimax sensor box on the chassis. Sensor box communicate weight data with Kimax display inside the cabin.



Air circuits and sensors

On all vehicles you get optimal accuracy with two independent air inlets for each axle, one for each pneumatic circuits (right and left) per axle or axle group. Kimax 2 calculates the current axle load on each axle from two reference values LO and HI.

- When less accuracy is enough for you, one air inlet on each axle or axle group is available too.

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 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
Air connection	Quick release connection, 6 mm hose
Maximum pressure	15.5 bar (225 psi)
Operating	pressure range 0 to 10.5 bar
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

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