

# Weishaupt WG30 and WG40 gas burners LN (LowNO<sub>x</sub>) version

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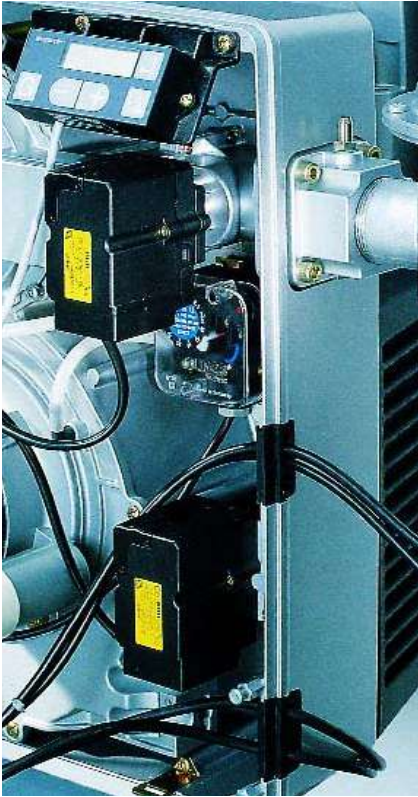
# The new world of combustion technology

Weishaupt has opened a new chapter in digital burner management. The new rating capacity of the legendary W series burners (135 to 1,900 MBTU/h) uses the latest microprocessor technology for setting, controlling and monitoring of all burner functions. The result is a new series of burners, which offers not only improved comfort and precision, but also value for money. Furthermore, the new burners are easy to commission, service and are quieter in their operation than other burners with a comparable rating.





# The latest developments in burner technology: More precision with intelligent electronics



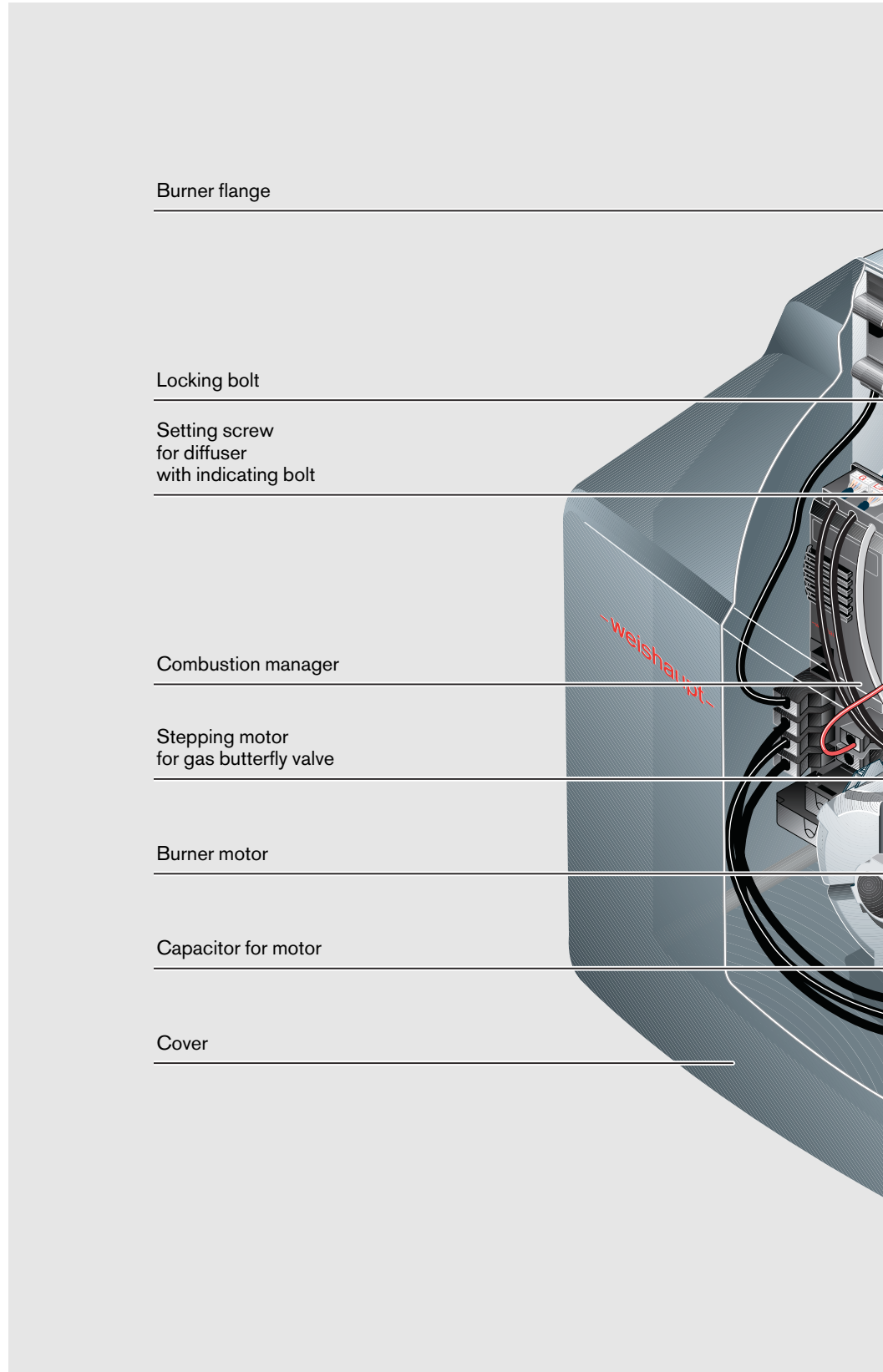
Stepping motors for gas and air regulation

## A Weishaupt burner through and through

Looking beneath the cover of the WG30 and WG40 burners reveals Weishaupt's usual logical layout of components. The transverse fan design has already proven itself. The most important new components are the combustion manager, which replaces the burner controller previously used and the stepping motors, which regulate the gas butterfly valve and air damper settings in steps of only one tenth of a degree, making it more accurate than ever before.

## A new chapter in the history of success

The principle of the WG30 and WG40's construction is being carried over to the smaller compact burners in the Weishaupt W range. The result of this development will be a range of burners from 40 to 1,900 MBTU/h with identical technology and a minimum of differing components.



Burner flange

Locking bolt

Setting screw  
for diffuser  
with indicating bolt

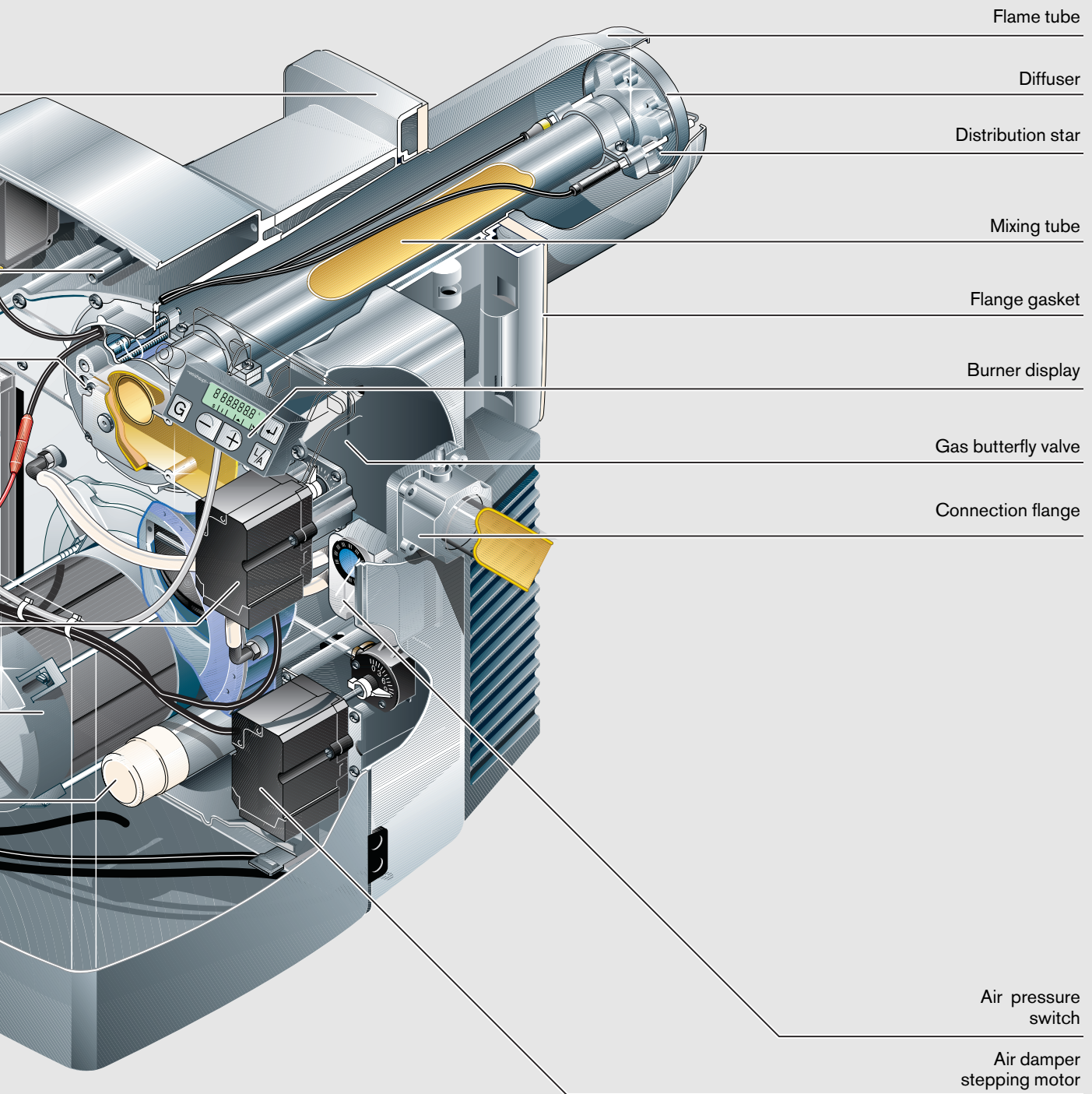
Combustion manager

Stepping motor  
for gas butterfly valve

Burner motor

Capacitor for motor

Cover



# Digital burner management: More comfort - less time



The Weishaupt combustion manager

## The computer as a friend

At the heart of the burner technology lies the Weishaupt combustion manager. Its efficient microprocessor controls and monitors all burner functions. The burner display with its simple operating panel displays the sequence of operations for burner commissioning. All calculated values can be displayed and, once the cover is removed, all set values for operation of the burner can be programmed using four keys.

## Error-free plug connection

Coded plug connections ensure the correct electrical connection of all components.

## Capacity regulation - stepping motors for gas and air regulation

Ignition position, low fire position and burner rating can be preset with the two stepping motors. Between low fire and high fire the stepping motors operate electronically in compound.

## Types of regulation:

- sliding two stage
- modulating - by using the relevant modulation controller, the standard sliding two stage burner can be operated as a modulating burner.

## Report and diagnostic display

During normal burner operation (2 stage or modulating) the position of the stepping motors are indicated on the display.

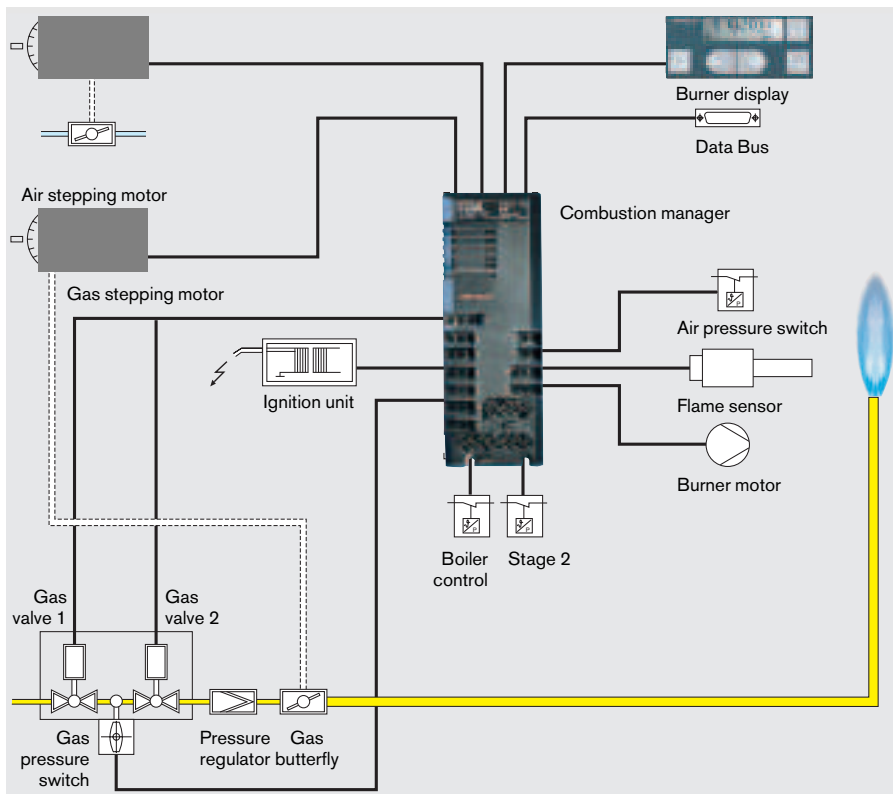
## If a burner lockout occurs

the display not only shows the error message, but also an error code. This allows immediate recognition and rectification of the cause of lockout.

## Keywords - Building Management System

The Weishaupt combustion manager is fitted with a serial BUS connection. To enable communication with other systems an interface has been provided. A self-dialling modem can be interfaced, which can report the burner lockout and its cause to a designated telephone or fax connection (e.g. the heating specialist).

Connections to other components (e.g. controller) or to the DDC installation can be made via the same interface.



**The most important features and functions of the Weishaupt combustion manager**

- Near identical construction for oil and gas burners
- Automatic recognition of gas or oil burner
- Easy operation via a key on the display panel
- LCD display to show the following
  - Operating mode with ratings setting
  - Information mode
    - Hours run
    - Number of burner starts
    - Measured fuel consumption
    - Unit number
    - Software version
    - Date of manufacture
  - Service mode
    - Burner setting values
    - Error message display
  - Parameter mode
    - Pre-selection with/without valve proving
    - Air damper setting at burner shutdown
    - Post purge time
    - Bus address
  - Error messages
- Electronic compound fuel/air regulation to given characteristics
- Control of stepping motors
- Multifunctional Bus connection to:
  - PC for presentation of the operational sequence and setting of function parameters
  - Remote monitoring and diagnosis via self-dialling modem
  - Interfacing with other components of the heating plant (e.g. controller or DDC unit)



Burner display with all operating keys (burner cover removed)



With the burner cover in place the information key remains available to the operator.

# A principle for the future: Excellent value for money

## **One concept - two convincing solutions**

A new construction concept was realized with the W30 and W40 series of Weishaupt burners. Both gas and oil burners are of identical basic design and are fitted with the latest microprocessor technology. The result is easier installation, operation, setting and service and spares supply.

## **Saves money, saves time**

Synergy effects during construction and finishing, the use of economical electronic control and regulation technology and proven Weishaupt combustion technology ensure a solution, which is convincing not only from a technical, but also from an economic point of view.

The WG30 has a capacity of up to 1,200 MBTU/h, the WG40 up to 1,900 MBTU/h. In the past a Weishaupt burner of this rating would have cost considerably more.



# Installation, setting and service: Easier, quicker and more precise than ever before

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Adjusting the mixing head

### Time is money

It has never been so easy to install and commission a burner of this rating.

### Optimum accessibility

Optimum accessibility becomes apparent the moment the cover is removed. All the components are clearly laid out, electrical connection is unmistakable. The mixing head can be matched to the required rating with the setting screw. This state of the art technology is typical of Weishaupt products.



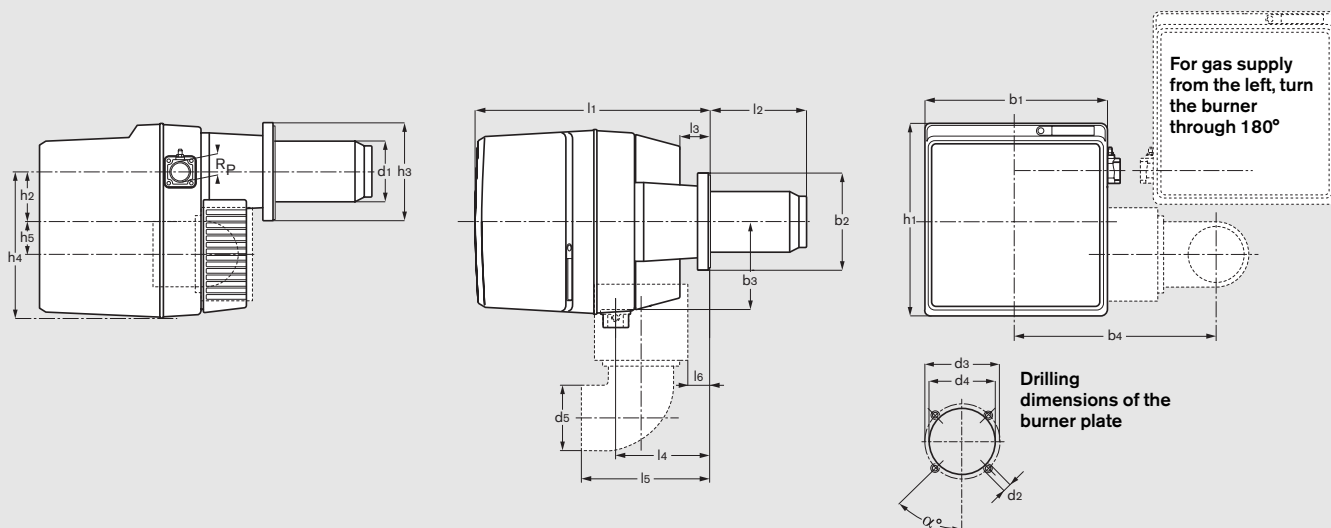
Loosening the mixing head

The components are also easily accessible for servicing. The mixing head can be removed easily, and the housing cover with motor block and combustion manager can be removed and placed into a service position for servicing the fan. Every service engineer benefits from this accommodating construction.



Removing the mixing head

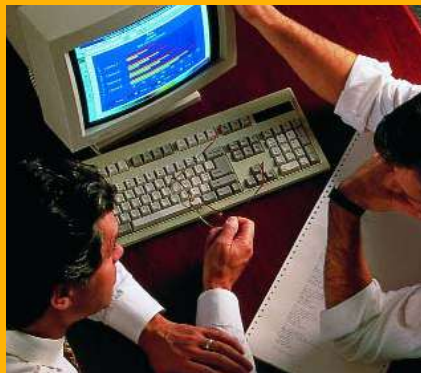
## Burner dimensions types WG30 and WG40



	Dimensions in inches											
	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	h <sub>1</sub>	h <sub>2</sub>
WG30	18.9	6.5	2.4	7.8	10.7	1.5	16.9	8.9	7.7	19.2	18.1	4.4
WG40	22.7	9.3	2.8	9.3	11.9	1.9	17.7	9.6	8.1	19.2	18.9	4.7
	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	α°	R <sub>p</sub>		
WG30	8.9	13.5	3.3	5.0	M8	6.7 - 7.3	5.1	5.9	45°	1 1/2		
WG40	9.6	14.2	3.3	5.9	M10	7.3 - 7.9	6.3	5.9	45°	1 1/2		

# We are always available

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*The Weishaupt service organisation supporting the trade*

The new control and diagnostic technology of Weishaupt burners makes life easy, even service work. Thanks to electronic equipment, lockouts can be detected and rectified faster than ever - even by remote diagnostic via telephone and computer.

However, in one area we remain "old fashioned". The Weishaupt principle 'Service always and everywhere' remains steadfast. Weishaupt customer service is available throughout the year and around the clock, whenever you require help, be it for spares supplies, technical advice or service on site.



*Speedy supply of spares is ensured by automated parts store*

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