

OIMMERGAS

Remote control for single light commercial boiler

for the users



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GENERAL SAFETY WARNINGS.

All electrical connections must be carried out by a qualified technician in compliance with the standards and directives in force.

Electrical connection of the regula-

tors.

connect the remote control terminals "A" and "B" respectively to the terminal "M" and "O" of the A38 connection board accessible by removing the rear cover of the boiler control panel.

Boiler address setting: set the "0" address on the clip-in (optional) mounted on the main electronic board.

Key: A25 - CLIP-IN (optional) A38 - Connection board (signals) S20- Room thermostat (optional) Cable type: J-Y(St)Y 2x2x0,6. Maximum permitted -CONAD length: 50 m 2 - Address 0 N.B: Remove link X40. B¦ **N.B:** *the 'CH demand type' parameter must be* set as 'Room thermostat setpoint' (default value). 1 It is possible to connect the following sensors to the device and read them via BUS: *External probe* (B4) DHW probe (B2) 0 \leq DHW Thermostat/Contact (S50) A38 N.B: The DHW can be managed locally (appropriately configure the 3-way valve via the parameters in the "Relay settings" menu.



INTRODUCTION.

Visualization and control elements.



- 1 Selection and confirmation knob
- *2* Setting daytime temperature
- *3 Setting reduced temperature*
- 4 Setting domestic hot water temperature
- 5 Heating and set back programs
- 6 Setting heating parameters
- 7 System information
- 8 Display

Operation.

Symbols used in this manual:



turn: select parameters, change values



press once: confirm, store



The center-positioned knob and the labelled keys makes the operation simple and easy to handle. It is however recommended to read this manual attentively to be informed about the repeating steps.

- Each value in the display appears flashing and can be modified with the rotary-push button. A flashing display is appropriately marked in this manual.
 Turn to the right (+) clockwise: increase values.
 Turn to the left (-) anticlockwise: decrease values.
- Press: acceptance of the selected and indicated value, store.
- Keep pressed for about 3 seconds: entry into the programming level (level selection).

The last operation step will be stored automatically after approximately 60 seconds if it was not stored by touching the knob.

Start-up:

In case of initiation of the plant or after every power failure a display test of the large display is carried out with automatic error diagnosis. At that all available segments and symbols will be displayed.

Language selection:

In case of first initiation the desired language can be chosen after the display test. The languages DE, GB, FR, IT, NL, ES, PT, HU, CZ, PL, RO, RU, TR, S, N can be selected.



This display appears after every restart on day of first initiation until midnight. After that the language can only be changed in the level SYSTEM - parameter LANGUAGE.





Standard display

Summer switching-off activated



Standard display

Frost protection activated

Device identification.

After the display test and/or the language selection the device identification momentary appears with device type, interface and the corresponding number of software version.

Basic display.

Provided that there is not any error message, the basic display indicates the date, time, heating mode (\Rightarrow = daytime temperature, (\langle = reduced set back temperature) as well as the current boilertemperature or, if released, the room temperature. Response time program. The cursor below (-) indicates the current operating mode (see function of operating modes). The upper time bar shows the heating periods and the corresponding operating times of the current weekday.

An activated summer switch-off is represented in the basic display by a sunshade symbol ($\stackrel{\text{\tiny D}}{\longrightarrow}$). The heating mode symbols eq or eq will be suppressed during an activated summer switch-off.

With acting frost protection function an ice crystal symbol appears in the basic display (~ \circledast).

KEYS FUNCTION.

Temperature settings.





This button is used to set the daytime room temperature.



This button is used to set the required reduced temperature.



This button is used to set the required domestic hot water temperature.

To change please press the respective button; when the set value flashes, it can be changed through the knob.

The return to the standard display is done pressing the knob or automatically after 60 seconds.

Operational mode selection for heating and domestic hot water.



With this button the required operational mode is selected. It appears in plaintext on the display, simultanously a cursor at the lower edge of the display points to the appertaining program symbol.

Select:

Pressing the operational mode selection button, the previously set mode appears flashing. The other operational modes can be selected and activated with the knob according to the following scheme.



Functions of operational modes.

| Plant off during holid | ıy | Interrupt heating operation | Extend heating operation | Heating operation via timer | Domestic hot water only | Permanent heating operation | Permanent red. heating operation | Plant off frost protection |
|---|---|--|--|---|--|---|---|---|
| ноцояч ті _ 19:27 24. 🗅 А.Т. © те 3 | L 09 ⊱ແ⇔ | 885ENT TIL 10:27 19.30 ⇔ & ™ © ಈ ఈ « ⇔ | <i>PRRTY TIL</i> 19:27 02.27 ☆☆☆♡☆☆(♡ | <i>MO. 22 RUG. 'OS</i> 19:27 _ 56.5 °° ≏ & ts.© t≈ ☆ ((') | SUMMER 10:21 24.0° ≏ \$ 15.© € ★ (() | HERTING 19:27 72.0° ≏&rs.©t≈.★(() | RED. HEATING 19:27 45.0° ⊡ Ars.©tra & () | STRNDBY 19:27 ≏ କି ୩୦ ଓ ଅନ ଝ ଏ ୯ |
| Setting range: Actual dateactuu + 250 days. Return to the previselected operati mode at 0.00 o'cl- the set return date Hot water operatio to frost protection Earlier termination Press button (mean lect required operar mode with rotary button and press to activate. | l date iously ional ock of i s set <u>1</u> , se- tional -push again | Setting range: P1: Heating operation is interrupted until next switching-on time of current operating time program (see level TIME PROGRAMS). 0.5 24h: Heating operation is interrupted until set time of return. Earlier termination: Press button @ , se- lect required operational mode with rotary-push button and press again to activate. | Setting range: PI: Heating operation is continued until next switching-on time of current operating time program (see level TIME PROGRAMS). 0.524h: Heating operation is continued until end of party. Earlier termination: Press button @ , se- lect required operational mode with rotary-push button and press again to activate | Operating times: (see level TIME PRO- GRAMS). Heating and domestic hot water operation au- tomatically according to settings of temperature settings) and selected operating times program. Programming of indi- vidual operating times see level TIME PRO- GRAMS). | Operating times: (see level TIME PRO- GRAMS) Only hot water operation according to settings of hot water temperature (see TEMPERATURE SETTINGS) and selected operating times program. The heating operation is interrupted and frost protected. Programming of indi- vidual operating times see level TIME PRO- GRAMS). | Permanent heating and reduced hot water ope- ration round the clock according to the settings of daytime room tem- perature and domestic hot water temperature (see TEMPERATURE SETTINGS) | Permanent reduced hea- ting and reduced hot water operation round the clock according to the settings of set back temperature (see TEMPERATURE SET- TINGS), reduced heating mode (see level UNMIXED CIRCU- IT) and hot water economic temperature (see level DHW). | Heating and hot water plant completly switched off except for frost pro- tection mode. |
| Page 10 | | | | | | | | |

Quick operational mode selection.



Setting range: 0...240 min Factory preset: 0.0 min

Short-time operational modes

Frequently used operating modes such as PAR-TY or ABSENT or reloading the hot water tank during set back mode can be selected quickly according to the left scheme.

Direct automatic mode

Pressing button for approx. 3 seconds activates the automatic mode via timer inevitably. Functions and setting range see Operational mode selection for heating and hot water - Function of operational modes.

Manual hot water loading

To activate manual hot water loading outdoor of operation times the button has to be pressed for about 3 seconds. This turns on hot water preparation at any time for a period which may to be adjusted with the rotary pushbutton between 0

...240 minutes. Pushing the rotary pushbutton activates loading. Afterwards the controller returns to program operation. At adjustment 0.0 the loading is independent of any time period. The tank will be loaded up to the set DHWtemperature value once.

modify



accept

Setting the heating characteristics (heating curve).



Note: The heating slope should be modified only in small steps and left for a while until steady condition can be obtained. Changes to the slope should be made in intervalls of 0.1 every 1 or 2 days.



This button regulates the heating characteristics of each heating circuit in relation to outside temperature.

The adjustment is independent of the system and shows the relation between outside temperature and max. heating temperature.

The slope sets the change of the max. heating temperature, if the outside temperature changes for 1 °C.

Diagram of heating curves



Re-entry into the standard display is done pressing the button 🗷 again or automatically after approx. 60 seconds.

System information.



This button displays all plant temperatures and states of all circuits. The information can be requested according to the direction with the rotary-push button..

Turning rotary-push button clockwise:

displays from all plant-specific temperatures:

- meter readings such as consumption data etc.
- the actual values and the nominal values (pressing rotarypush button).

Turning rotary-push button anti-clockwise:

displays from direct heating circuit resp. DHW circuit:

- operational mode (holiday, absence, party, auto etc.).
- timer programm P1(P2 and P3 only when released).
- heating mode (daytime-, reduced-, ECO-mode).
- identification (direct circuit HC, hot water circuit DHW).
- status of heating- and DHW charging pump (on, off).

shows of boiler:

- operating status (on, off).
- number of service hours.
- number of starts.



shows of heat generator, boiler etc.:

- operating status (ON, OFF).

shows, if room sensor is activated:

- room thermostat function (heating ON, OFF).

- current room temperature.

shows, if pressure sensor is present:

- water pressure.

¹⁾ display dependent on the type of heat generator.
 ²⁾ will be displayed only if the room sensor was activated before.

PROGRAMMING LEVEL - LEVEL SUMMARY.





Selection and modification of parameters and setting values.

Entering into the programming level, principally the OPERATING-TIMES level appears at first.

All other levels, such as:

- SYSTEM.
- DOMESTIC HOT WATER CIRCUIT.
- DIRECT HEATING CIRCUIT.
- DATE TIME.

Can be selected directly via knob.

By pressing the knob, the selected flashing level is activated; the first value or resp. parameter appears flashing.

If necessary, it can be modified via the knob and stored by a following touch onto the knob.

If necessary, the other parameters can be treated in the same way.

Re-entry into the level selection is done via the info button **i**, re-entry into the standard display via the program-selection button **or** automatically after approx. 60 seconds.

Programming of operating times.





- Wed- Thu- Fri- Sat- Sun-



Note: The 3rd heating cycle is skipped if the 2nd heating cycle does not include any operating times!

Modify - Exit :

Confirm selected flashing value by pressing the knob. Then set the new required value via knob and take over by pressing it again. Reentry into the former step is done by pressing the button (i), exit into the standard display via the button (or automatically after approx. 60 seconds.

Copying operating times.



Programming of operating times includes a extensive copying function which allows to copy any day of the week to other days (Mo..Su) resp. to the whole week (1-7) or parts of a week such as workdays (1-5) or weekends (6-7).



Modify - exit:

Confirm selected flashing value by pressing the knob. Then set the new required value via knob by pressing it again. Re-entry into the former step by pressing the button into the standard display via the button or automatically after approx 60 seconds.

Reloading of standard time programs: deleting of individual operating-times programs.



The standard programs do not get lost by overwriting with individual programs. Individual programs however are cancelled at a later call of the corresponding standard programs and have to be set up again. For this purpose individual switching-on and switching-off times should always be noted (see level TIME PROGRAMS - table for individual programs).

Modify - exit:

Confirm selected flashing value by pressing the knob. Then set the new required value via knob and take over by pressing it again. Re-entry into the former step in done by pressing the button 1, exit into the standard display via the button or automatically after 60 seconds.



Standard operating times programs are the following:

Standard operating times program P1

| Circuit | Day | Heating from-till |
|-------------------------------|-------|-------------------|
| Unmixed heating circuits (HC) | Mo-Su | 06.00 - 22.00 |
| Domestic hot water (DHW) | Mo-Su | 05.00 - 22.00 |

Standard operating times program P2 (see level SYSTEM)

| Circuit | Day | Heating from-till |
|----------------------------------|----------------------|--|
| Unmixed heating circuits (HC) | Mo-Th Fr Sa-Su | 06.00-08.00 16.00-22.0 06.00-08.00 13.00-22.00 07.00-23.00 |
| Domestic hot water (DHW) | Mo-Th Fr Sa-Su | 05.00-08.00 15.30-22.0 05.00-08.00 12.30-22.00 06.00-23.00 |

Standard operating times program P3 (see level SYSTEM)

| Circuit | Day | Heating from-till |
|-------------------------------|----------------|------------------------|
| Unmixed heating circuits (HC) | Mo-Fr Sa-Su | 07.00-18.00 reduced |
| Domestic hot water (DHW) | Mo-Fr Sa-Su | 06.00-18.00 reduced |

Table for individual operating times and programs

| | Operating times program P1 | | | | | | | Operating times program P2 | | | | | Operating times program P3 | | | | | | |
|--------|----------------------------|-----------------------|------|---------------------|------|-----------------------|------|----------------------------|------|-----------------------|------|-----------------------|----------------------------|-----------------------|------|-----------------------|------|-------------------|------|
| | | 1 st cycle | | e 2 nd c | | 3 rd cycle | | 1 st cycle | | 2 nd cycle | | 3 rd cycle | | 1 st cycle | | 2 nd cycle | | 3 rd c | ycle |
| ĝ | Day | from | till | from | till | from | till | from | till | from | till | from | till | from | till | from | till | from | till |
| nit (- | Mon | | | | | | | | | | | | | | | | | | |
| circi | Tue | | | | | | | | | | | | | | | | | | |
| ating | Wed | | | | | | | | | | | | | | | | | | |
| d he | Thu | | | | | | | | | | | | | | | | | | |
| mixe | Fri | | | DS/ | | | | | | B | | | | | | B | | | |
| Ľ | Sat | | | | | | | | | | | | | | | | | | |
| | Sun | | | | | | | | | | | | | | | | | | |

| | Dav | 1 st cycle | | 2 nd cycle | | 3 rd cycle | | 1 st cycle | | 2 nd cycle | | 3 rd cycle | | 1 st cycle | | 2 nd cycle | | 3 rd cycle | |
|--------|-----|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|-----------------------|------|
| MH | Day | from | till |
| nit (D | Mon | | | | | | | | | | | | | | | | | | |
| - circ | Tue | | | | | | | | | | | | | | | | | | |
| vatei | Wed | | | | | | | | | | | | | | | | | | |
| hot-\ | Thu | | | | | | | | | | | | | | | | | | |
| estic | Fri | | | ß | | | | | | ß | | | | | | B | | | |
| Dom | Sat | | | | | | | | | | | | | | | | | | |
| | Sun | | | | | | | | | | | | | | | | | | |

Time - date.



Time reset mode.setting range:automatic:last Sunday in March and in Octobermanual:no time reset

see Programming level - Level summary. Entry: Exit: via button (or automatically after 60 sec.. Modify: confirm selected flashing parameter by pressing the knob. Then set the new required value via the knob and accept by pressing the knob again. The beside standing values are factory preset and normally need not be updated. The internal pre-programmed calender provides an automatic time change at the yearly repeating summer- winter time resetdates. If required, the automatic time reset can be switched off (manual reset).

PARAMETERS CONFIGURATION.

Setting of system parameters (for the technician).



This level includes general delimiting parameters and options referring to the corresponding heating system.



L'ANGURGÉ-

SYST.

DE

Lang



| DE = German | GB = English | FR = French |
|-----------------|----------------|---------------|
| IT = Italian | NL = Dutch | ES = Spanish |
| PT = Portuguese | HU = Hungarian | CZ = Czech |
| PL = Polish | RO = Romanian | RU = Russian |
| TR = Turkish | S = Swedish | N = Norwegian |
| | | |

factory preset: DE

standard: P1

Operating times program setting range: P1, P1-P3



next parameter



This parameter specifies the number of the cleared time programs. With the regulation P1 only one operating times program is available. With the setting value P1-P3 all three programs are cleared and taken into consideration for programming operating times.

All information appearing on the display are available in a number of

languages. After entry as first parameter appears the language selection. The required language can be selected according to the above assignment. see Programming level - Level summary.

Entry:

Exit:

via button 🔶 or automatically after 60 sec..

Modify: confirm selected flashing parameter by pressing the knob. Then set the new required value via the knob and accept by pressing the knob again.

Application: use of the instrument at the corresponding language area.

Application: shift work, different programs for summer, transition period, winter etc.



next parameter

Control mode

setting range: factory preset: 1

Common control mode:

The selected operational mode (via button reference) (for Holiday, Absence, Party, Automatic etc.) applies to the heating circuit and to the hot-water circuit together.

1 = common mode

2 = separated mode

Separated control mode:

Each heating circuit can be assigned with its own operational mode and temperature settings. With separated mode all regulations refer also only to the previously selected heating circuit as shown below. Application: objects with uniform seizure character (Onefamily houses etc).

Application: objects with different use of heating and hotwater (for example heating operation in Holiday mode, hot-water permanently in reduced mode).





Summer switching-off. setting range: OFF, 10.0 to 30,0 °C. factory preset: 20.0 °C.

next parameter



This parameter specifies the heating delimiting value regarding the average resp. current outdoor temperature and puts the heating plant automatically out of service as soon as the outdoor temperature exceeds the set heating delimiting value.

During summer switch-off the pump of the heating circuit is activated each day for approx. 10 seconds to protect it against corrosion.

With setting OFF the summer switch-off is not effective. Hot water preparation is not affected by summer switch-off. **Important:** the active summer switch-off appears on the standard display with a sunshade symbol.



Summer switch-off activated

Application: all objects which do not require a heating operation during summertime.



Parameter-reset.

This function resets all individually entered values in the programming level to factory preset. **Exception:** time-date, operating times. Important:

nt: reset may only be executed if all individually entered values shall be replaced by the facory preset values!



Reset: press rotary-push button for approx. 5 sec. while indication SET is flashing, until standard display appears.

Domestic hot water parameters setting.







Hot water economic temperature.

Setting range: Factory preset:

10.0 °C up to the required hot water temperature. 40 °C.

next parameter



This parameter determines the amount of the reduced hot-water temperature outside the hot-water operating times (between the hot-water cycles) as well as in the operational mode ABSENCE for the duration of absence

This level includes the necessary parameters for programming the

hot water economic temperature and the legionella protection.

| Legionella protection (day). | | | | | | |
|------------------------------|-----------------|--|--|--|--|--|
| Setting range: | OFF, MOSU, ALL. | | | | | |
| Eactory propot | OFF | | | | | |

Factory preset: OFF.

The legionella protection serves to avoid a legionella infestation inside the hot-water tank and is activated on the selected weekday (Mon to Sun) or every day at 2.00 o'clock. If the hot-water temperature should drop below 65 °C, the tank is reloaded. With setting OFF this function is not effective.

Entry: Exit: Modify: see Programming level - Level summary. via button or automatically after 60 sec.. confirm selected flashing parameter by pressing the rotary-push button. Then set the new required value via and accept by pressing the rotarypush button again. If necessary, correct the following parameters in the same way.

Application: base temperature inside the hot-water tank in order to avoid a cooling down of the tank.

Important: this parameter is skipped if a hot-water thermostat is used instead of an electronic hot-water sensor!

Application: other legionella protection times can be regulated exclusively by the heating plant specialist.

Important: danger of scalding! Use thermostatic mixing valve on DHW outlet!

Heating circuits parameters setting (direct circuit).





| Reduced heating | , mode. |
|-----------------|----------|
| setting range: | ECO, RED |

sponding heating system.

factory preset: ECO

next parameter

HC

ECO



During the reduced operation the following modes can be selected: ECO mode: At oudoor temperatures above the set plant frost protection the heating circuit is switched off completely. At temperatures below frost protection the heating circuit is controlled with reduced heating characteristic according to the required reduced temperature (see TEMPERATURE SETTING).

This level includes the parameters required for programming

the reduced heating mode and the adaptation to the corre-

RED mode: During the reduced mode the heating circuit pump remains activated. The heating circuit is controlled according to the reduced heating characteristic, the temperature does not drop below the set Application: objects with high insulation values. minimum temperature value.

| see Programming level - Level sum- |
|------------------------------------|
| mary. |

Entry:

Exit:

Modify:

via button (or automatically after 60 sec..

confirm selected flashing parameter by pressing the rotary-push button. Then set the new required value via and accept by pressing the rotarypush button again. If necessary, correct the following parameters in the same way.

Application: objects with high insulation values.



Adaptation to the heating system (value m).

setting range:1,00 to 10,0factory preset:1,30

This parameter refers to the type of the heating system and has to be adapted to the power characteristic of the corresponding consumer (underfloor systems, radiator, convector). The setting value specifies the curvature of the heating curve of the selected weather dependent heating circuit and compensates the system-related efficiency losses at lower temperatures by a progressive heating curve in conformity with the adjustment.

Heating circuit name

This is used to assign an individual, 5 character, abbrevia-ted name to each heating circuit.

No individual name is assigned if the setting "empty" is used. The default abbreviated name appears.

- The character that blinks can be altered using the rotary knob according to the code number and accepted by pressing the knob once. The remaining characters can be altered in the same way.
- The individual heating circuit name display appears:
 - in the menu;
 - in the parameter tree;
 - in the info level.

Application:

the following setting values are recommended for the belowmentioned applications:

| Setting value | Application |
|---------------|---|
| 1.00 1.10 | Heating curve for underfloor heating systems or other static heating surfaces |
| 1.30 2.20 | Normal standard heating curves for radiators |
| 3.00 4.00 | Heating curve for convectors |
| 4.00 10.0 | Special heating curve for ventilators with high starting temperatures |



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ERROR MESSAGES.

| OUTSIDE | |
|---------|-----|
| ERROR | 10- |

Example for error messages "sensor" (short or open circuit) error code 10...20

| HERT GEN. | |
|-----------|------|
| ERROR | 30-r |

Example for error messages "boiler" (control status") (flue gas temperature exceeded) error code $30...40^{1}$

DHU ERROR **50-**4

Example for logical error messages (control functions): error code 50...60

| BUS | |
|-------|-----|
| ERROR | -07 |

Example for error messages "data bus" (address error) error code 70 ...

¹⁾ For these alarm messages the error codes of the heat generator in the corresponding installation manuals have to be considered.

The instrument is equipped with an extensive error diagnostic features. The error displayed takes priority over other displays and varies dependent on the model in question.

For alarm messages from burner control (ERROR Xn:m) the error codes in the corresponding installation manuals have to be conside-red.

Note: Alarm messages only appear alternating with the stan dard display.



In case of error messages the heating specialist has to be informed!

PRODUCT SPECIFICATIONS.

In accordance with Regulation 811/2013 the temperature control device class is:

| Class | Contribution to the environmental heating seasonal energy efficiency | Description |
|-------|--|--|
| V | +3% | Modulating Remote Control. |
| VI | +4% | Modulating Remote Control coupled to outer sensor. |

TECHNICAL SPECIFICATION.

| Supply voltage: | Via data bus |
|------------------------------------|--------------------------------------|
| | (DC-safety voltage by EN 60730) |
| Power consumption: | 300 mW |
| Bus interface: | T2B |
| Ambient temperature: | 060 °C |
| Storage temperature: | -2560 °C |
| Protection type acc. to EN 60529: | IP 30 |
| Protection class acc. to EN 60730: | III |
| Approval according to: | VDE 60730 |
| Casing dimensions (BxHxD): | 90 x 138 x 28 mm |
| Casing material: | ABS, antistatic |
| Electrical connections: | 2-wire mode with plugable connection |
| Recommended cable: | J-Y(St)Y 2 x 2 x 0.6 mm2 |
| Max. length of cable: | 50 m |
| Data and timer back up: | Min. 5 years from date of delivery |
| Accuracy of the internal clock: | ± 2s/day |
| Weight: | Approx. 150 g |
| | |

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