

wodtke Pellet Stove Technology

Quick Operating Instructions Control System S4 for Software S4 005 and Higher

pellet stove series "CW21[®]", "Dave", "Frank", "PE", "Ray", "Smart[®]", "Topline"

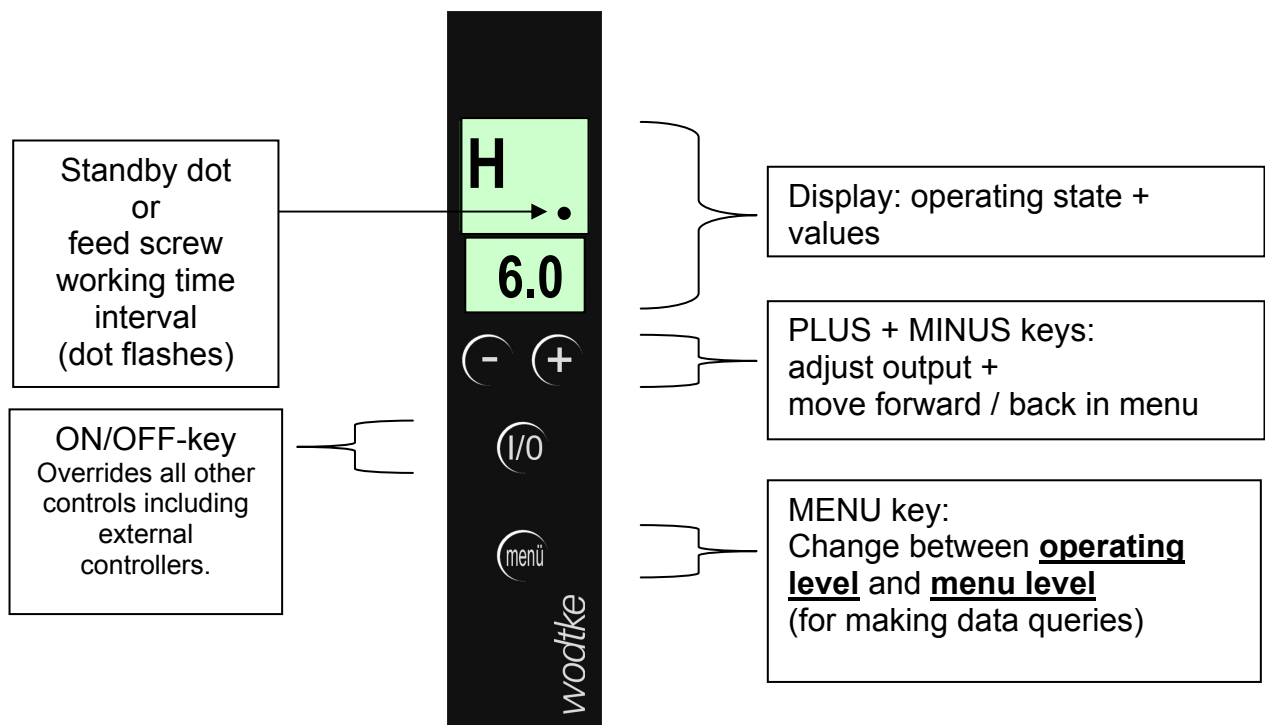


CAUTION: Please also read the general operating and assembly instructions.

This is a short version of the operating instructions which explains only the most important commands and display messages. It is neither complete nor sufficient in itself!

We hope your pellet stove gives you many hours of warm, snug comfort in your home.

wodtke GmbH



Display Messages

Display message	Explanation
•	“Standby dot” Appliance has been switched off manually via I/O key Press the I/O key to switch on the stove. The stove does not respond to external controllers when in standby mode.
ON	ON start signal (appears briefly when you switch on the stove) The stove has been started. After briefly showing the programme being used and running through an internal test it enters the preheating programme.
OFF	OFF stop signal (appears briefly when you switch off the stove) The stove has been switched off and enters fan after-run phase G OFF.
P3 400	This is the programme and programme version (appears for a few seconds during start-up). P1 = programme for 2-6 kW stove; P2 = 2-8 kW (only "Topline" AIRPLUS); P3 = 2-10 kW; P4 = 2-8 kW 400 = programme version 400, 401 = programme version 401 etc.
A -15	Preheating programme + number of minutes it has yet to run The stove begins to feed pellets into the firebox, the ignition element starts, and the ignition process is monitored (after the preheating phase has been successfully completed the stove enters the heating programme (H). The preheating programme runs for 15 minutes. The display shows the number of minutes it has yet to run.
H ...	Heating programme + set thermal output in kW The stove is in heating mode. example: H 8.0 = heating programme at 8 kW
H.M 2.0	Heating programme internal minimum + thermal output in kW → The heat generated by the stove is not being fed into the heating system / is not required. The stove's thermal output has been reduced to a minimum (2 kW) by an internal control mechanism. The stove will re-enter the heating programme (H) when the temperature has dropped sufficiently. Note: Don't confuse H.M (internal) with HM (no dot – external).
R 120	Cleaning programme R + number of seconds it has yet to run After 1 hour continuous operation in heating mode the stove starts an <u>automatic cleaning cycle</u> of 120 seconds duration. Specifically, pellet feed rate is reduced and fan speed is increased to reduce the amount of pellets in the burner pot and remove the flue ash from it.
G OFF	Fan after-run (=stove switches off; 15 minutes duration) The stove switches off. The fan runs for another 15 minutes to completely burn down the remaining pellets and carry off the flue gas. Note: Only when G OFF does not flash alternately with HE OFF or TW OFF does the stove go into standby after fan after-run is over. In all other cases the stove restarts automatically after fan after-run is over.
TW OFF	Heat exchanger is cut off by a thermal switch (→ heat is not fed into the heating system) The stove switches off via an internal control mechanism because boiler water temperature TW > 80 °C. The stove restarts automatically after the temperature has dropped sufficiently. Message only valid for Waterplus appliances.
WA ...	Service prompt (appears briefly) The stove needs <u>servicing</u> . example: RA 0.1 = servicing overdue since 0.1 t pellets.
•• •••	“Function currently not available” This display message appears when the function you have called up is currently not available or if there is no function assigned to the key you have pressed.
HE ...	Externally controlled heating programme (only possible with external modulating controller) The stove is being operated at the indicated output level via an external controller. example: HE 7.2 = heating programme running at 7.2 kW via an external controller
HM 2.0	Heating programme running at minimum level (only possible with external controller) The stove has been set to its minimum output level (2 kW) via an external controller (MIN/MAX input). Note: Don't confuse H.M (dot between H and M – internal) with HM (no dot – external).
HE OFF	Heating programme switched off via external controller (only possible with external controller) The stove has been switched off via an external controller (via input ON/OFF or BUS).

Error Codes

In the event of errors of error class 1 (F1) use the error code find the cause of the error, rectify the error and then do a reset by pressing the I/O key. In the event of class 2 errors (F2) the stove automatically carries out a reset as soon as the cause has been eliminated.

Display message	Error class (F1) or (F2) / Cause of error
RE Er1	(F1) – Bridge wire at “auxiliary input” (RE) open or error in external component/device connected to it
ST	(F1) – STB (temperature cutoff – a safety device) has triggered. Temperature at heat exchanger too high
TR	(F1) – Flue gas temperature (TR) too low during operation
TR Er1	(F1) – Flue gas temperature sensor (TR) broken
TR Er2	(F1) – Flue gas temperature sensor (TR) shorted
TP	(F1) – Temperature at pellet chute (sensor TP) too high
TP Er1	(F1) – Pellet chute temperature sensor (TP) broken
TP Er2	(F1) – Pellet chute temperature sensor (TP) shorted
HB Er1	(F1) – Defect in operating panel, operating panel cable or communication with TC1 Touch Control (optional)
HP Er1	(F1) – 24 V inputs to main circuit board defective or wrongly connected
HP Er2	(F1) – Reference temperature sensor on main circuit board defective
HP Er3	(F1) – Write / Read error by EEPROM on main circuit board
LM Er1	(F1) – Air flow sensor (LM) broken
LM Er2	(F1) – Air flow sensor (LM) shorted
TL Hi	(F1) - Temperature at air flow sensor (TL) too high
TL Grd	(F1) – Temperature gradient at air flow sensor too high
TW Er1	(F2) – Temperature sensor in heat exchanger (TW) broken
TW Er2	(F2) – Temperature sensor in heat exchanger (TW) shorted
L- LO	(F2) – Lower air flow limit exceeded
R4 Er1	(F1) – “Auxiliary output 4” (safety relay) defective
BU Er1	(F2) – BUS error (defect in bus communication or input RS 485)

Data Queries

Press "Menu" key once. Use the "+" and "-" keys to move through the menu.

Display message Menu level	Explanation	Remarks
S4 001, 002...	Currently installed software version	Identifies the basic software installed on the main circuit board (cf. computer operating system). It does not refer to the programme version , which is what determines power capacity etc.
Z ON / OFF	Z ON = ignition on Z OFF = ignition off	Shows whether the "Zündung Z (ignition)" output is live (ON) or not (OFF)
S ...	Feed screw interval in seconds	Shows the current working time interval of the feed screw in seconds, which is what determines pellet feed rate
U ...	Fan speed in %	Shows the current voltage at the "fan" output in terms of % of nominal voltage
L ...	Air flow at the air flow sensor	Shows the combustion air flow currently measured by the air flow sensor (LM)
TP ...	Temperature at pellet chute in °C	Shows the temperature currently measured by the TP sensor at the pellet chute in °C
TL ...	Temperature at air flow sensor in °C	Shows the temperature of the combustion air currently measured by the LM in the suction pipe
TR ...	Temperature at flue gas fan in °C	Shows the temperature currently measured by the TR sensor at the flue gas fan
TW ...	Temperature at water heat exchanger in °C <i>only valid for Waterplus appliances (programme P3)</i>	Shows the water temperature currently measured by the internal boiler sensor in the heat exchanger
P ON / OFF	Pump relay (make-contact relay) P ON = pump on = 230 V or mains voltage P OFF = pump off = 0 V <i>only valid for Waterplus appliances (programme P3)</i>	Shows whether the "Pumpe (pump)" output is live (ON) or not (OFF)
R1 ON / OFF	Auxiliary relay 1 (make-contact relay) R1 ON = 230 V or mains voltage R1 OFF = 0 V	Functional message ON = stove is running (though error may be present) OFF = stove not in operation
R2 ON / OFF	Auxiliary relay 2 (make-contact relay) R2 ON = 230 V or mains voltage R2 OFF = 0 V	Collective error message ON = no error OFF = has produced an error shutdown / has been switched off manually
R4 ON / OFF	Auxiliary relay 4 (break-contact relay, potential-free, max. load 2 A) R4 ON = relay open R4 OFF = relay closed	Functional message (via monitored potential-free safety relay) ON = stove is running (though error may be present) OFF = stove not in operation
BW ...	Operating hours since last servicing x 10	Examples: BW 56 = 560 hours since last servicing
BG ...	Total operating hours x 100	Examples: BG 56 = 5,600 total operating hours This counter cannot be reset.
PW ...	Remaining pellet consumption (in tons) until next servicing is due	Examples: PW - 1.2 = another 1.2 t of pellets can be burnt before the next servicing becomes due. PW 0.2 = servicing overdue since 0.2 t
PG ...	Total pellet consumption in tons	Example: PG 66.5 = 66.5 t of pellets have been burnt in total up to now. This counter cannot be reset.

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