

Service values easyDial

General information

- These instructions are intended solely for an authorized customer service engineer.
- Inform the customer of important points relating to operation and safety.

Intended use

These instructions summarize all the service values that arise in a Convotherm 4 combi oven with easyDial controls (software version 2.6.x and above).

Additional necessary instructions

These instructions are a supplement to the user and installation manuals and the servicing documentation for your appliance and must only be used in conjunction with these documents. Please refer to the manuals for technical data, intended use, design and operation and safety information.

Opening the Service mode

The Service mode software was developed for After Sales Service and designed for authorized and trained Field Service Engineers to aid fault diagnosis.



Consequently, all automatic software functions that normally run in the background are switched off and no error messages are generated when the combi oven is operating in the Service mode.

This means that with the appliance door open and the suction panel removed, the oven heater or the fan may start running for instance --> risk of injury, risk of burns.

It is also possible to switch on the boiler heating element, for instance, without water being in the boiler --> event. boiler sensor and boiler heating element may be irreparably damaged.

When in Service mode, take care to keep yourself safe and to avoid potentially irreparable damage to the appliance.

If you are not certain what precautions you should take in Service mode, please contact Convotherm After Sales Service.

1.  Switch on the combi oven.
2.  Open Service mode:
Press and hold the 'Time', 'Temperature' and 'Core temperature' buttons simultaneously for three seconds.


Please note:

- Making changes to the Service value settings without suitable technical knowledge may result in damage to the combi oven.
- Unauthorized changes in the Service menu may void the guarantee.

Read values (easyDial)

Read values allow read-only access e.g. to temperature sensors / sensors / counter readings / times etc.

Service no.	Output	DID	Comments
r1	Temperature CTP-1	-3B10	X4
r2	Temperature CTP-2	-3B10	X4
r3	Temperature CTP-3	-3B10	X4
r4	Temperature CTP-4	-3B10	X4
r5	Bypass sensor	-5B5	X7
r6	Oven sensor	-3B6	X1
r7	Boiler water temperature	-4B4	X10
r8	Surface-temperature sensor for boiler heating element	-4B8	X9
r9	Drain probe	-5B3	X6
r10	Spare		X5
r11	Sous-vide sensor	-3B11	X2
r12	Oven thermal cutout (spare)		
r13	Temperature of vapour condenser		X11
r14	Surface temperature SSR, cooking-chamber heater	-3B0	X3
r15	Surface temperature SSR, boiler heating element	-4B0	X8
r16	Temperature sensor SIB	-A1	
r17	Board ID	-A1	Voltage for electronics
r18	Sicotronic input: Heat required + enable	-A1	X37 B,C
r19	Spare	-6Q0	X21
r20	Door contact switch (NO contact)	-6Q0	X23
r21	Spare	-6Q0	X23
r22	Spare	-6Q0	X23
r23	Water-injection pressure switch	-4B1	X23
r24	Water level low in boiler	-4B12	X21
r25	Water level high in boiler	-4B12	X21
r26	Filter Care contact		X33
r27	Spare		
r28	Cleaning agent pressure switch	-7B0	X23
r29	Main contactor auxiliary switch		X23 13,14
r30	Appliance ON/OFF switch		X35
r31	Spare		
r32	Spare		
r33	Spare		

Service no.	Output	DID	Comments
r34	Gas pressure switch		
r35	Exhaust gas temperature limiter		
r36	Spare opto 1		
r37	Spare opto 2		
r38	Error message list containing last 20 errors		Press  and use the C-Dial for selection
r39	Spare Digital in 1		
r40	Spare digital input 2		
r41	SIB software version	-A1	
r42	SIB hardware version	-A1	
r43	easyDial software version		
r44	easyDial hardware version		
r45	Spare		
r46	Adjustable parameters version		
r47	Statistics version		
r48	Appliance ON time		[sec]
r49	Steam ON time		[sec]
r50	Combi-steam ON time		[sec]
r51	Convection ON time		[sec]
r52	Regenerate ON time		[sec]
r53	Convection 1 ON time		[sec]
r54	Convection 2 ON time		[sec]
r55	Convection burner 1 ON time		[sec]
r56	Convection burner 2 ON time		[sec]
r57	Boiler1 ON time		[sec]
r58	Boiler2 ON time		[sec]
r59	Boiler burner ON time		[sec]
r60	Circulation pump ON time		[sec]
r61	CS-chamber drainage pump ON time		[sec]
r62	Boiler drainage pump ON time		[sec]
r63	Collector valve ON time		[sec]
r64	Boiler valve ON time		[sec]
r65	Injection valve ON time		[sec]
r66	Oven light ON time		[sec]
r67	ConvoVent low-speed ON time		[sec]
r68	ConvoVent full speed ON time		[sec]
r69	Dehumidifier valve ON time		[sec]
r70	Door contact switch counter		
r71	Cleaning profiles version	-A1	
r72	Vapour-reduction condenser active		


Service no.	Output	DID	Comments
r73	Grease removal functionality		
r74	Appliance size		0 = 6.10 1 = 6.20 2 = 10.10 3 = 10.20 4 = 12.20 5 = 20.10 6 = 20.20
r75	Power source for appliance heating		0 = electric 1 = gas
r76	Type of steam generation		0 = injection 1 = boiler
r77	Number of variable frequency drives		
r78	Boiler limescale indicator		[%]

Diagnostic-testing values

Diagnostic-testing values are used to locate faults and check correct operation. The ⌚ button can be used to enable/disable the controller **switching outputs**.

(For example to switch the boiler heating element on/off)

Service no.	Description	Range	Indicators (third line) and/or information
d1	Boiler water valve	0 or 1 *	Indicates water level in boiler (empty, low, high water level)
d2	Boiler heating element 1	0 or 1 *	Temperature of boiler
d3	Boiler heating element 2	0 or 1 *	Temperature of boiler
d4	Water injection	0 or 1 *	Indicates water injection via pressure switch (ml/sec)
d5	Dehumidifier valve	0 or 1 *	
d6	Collector water valve	0 or 1 *	Shows water flow rate in flowmeter (ml/sec)
d7	Boiler drainage pump	0 or 1 *	Indicates water level in boiler (empty, low, high water level)
d8	CS-chamber drainage pump	0 or 1 *	
d9	Main contactor -2Q1	0 or 1 *	Auxiliary contact in main contactor
d10	Cooking-chamber heating element 1	0 or 1 *	Cooking-chamber temperature
d11	Cooking-chamber heating element 2	0 or 1 *	Cooking-chamber temperature
d12	Fan 1	-5 to 5	
d13	Fan 2	-5 to 5	
d14	Circulation pump	0 or 1 *	
d15	Cleaning-agent dispensing pump	0 or 1 *	Pressure switch for cleaning agent solution
d16	Rinse-aid dispensing pump	0 or 1 *	Pressure switch for cleaning agent solution
d17	Oven light	0 or 1 *	
d18	Signal tower green	0 or 1 *	< 300mA
d19	Signal tower yellow	0 or 1 *	< 300mA
d20	Signal tower red	0 or 1 *	< 300mA
d21	Signal tower audio signal	0 or 1 *	< 300mA
d22	Sicotronic	0 or 1 *	
d23	Cooling fan for electronics	0 or 1 *	SIB electronics temperature
d24	Heat-sink fan SSR, cooking-chamber heater	0 or 1 *	Heat-sink temperature
d25	Heat-sink fan SSR, boiler heating element	0 or 1 *	Heat-sink temperature
d26	ConvoVent low extraction rate	0 or 1 *	
d27	ConvoVent full extraction rate	0 or 1 *	
d28	Smoker heating element	0 or 1 *	

Service no.	Description	Range	Indicators (third line) and/or information
d29	Start convection burner 1, minimum speed	0 or 1 *	Use CT-probe button  to switch through: 1. current speed of burner fan 2. Status: 0 = burner off 1 = heat required 3 = heat required + flame ok 4 = error 3. error message number 4. ionization current in µA 5. Flame detector: 1 = flame ok 0 = no flame
d30	Start convection burner 1, maximum speed		
d31	Start convection burner 2, minimum speed		
d32	Start convection burner 2, maximum speed		
d33	Start boiler burner, minimum speed		
d34	Start boiler burner, maximum speed		
d35	Spare relay 1 (+12VDC)	0 or 1 *	
d36	Spare relay 2 (+12VDC)	0 or 1 *	
d37	Spare	0 or 1 *	
d38	Spare relay 1	0 or 1 *	
d39	Spare relay 2	0 or 1 *	
d40	Door mechanism (+12VDC)	0 or 1 *	
d41	Spare: Solenoid valve for vapour condenser	0 or 1 *	Temperature of vapour condenser


* 0 = Off
 1 = On

Control values (easyDial)

The control values allow read/write access to various function parameters. Basic appliance settings can be made here and optimization values can be changed using the ⌚ button or the C-Dial (e.g. burner speeds, ...).

Service no.	Output	Comments	Range
c1	Trade-fair mode (dummy)	Preset: 0	0 or 1 *
c2	easyDial update from USB to flash memory	Preset: 0	0 or 1 *
c3	SIB update from USB to flash memory	Preset: 0	0 or 1 *
c4	SIB Update from flash memory (firmware download to SIB)	Preset: 1	0 or 1 *
c5	Software restart		0 or 1 *
c6	Factory presets for parameters	Preset: 0	0 or 1 *
c7	Manual boiler rinse	Preset: 0	0 or 1 *
c8	Spare		
c9	Export HACCP to USB		0 or 1 *
c10	Boiling point correction for boiler	Sea level - Boiling point correction [1/100 °K], preset: 300	20 - 3000
c11	Fixed oven temperature for steaming	[°C], preset: 97	80 - 100
c12	C12	Preset: 0	0 - 9999
c13	C13	Preset: 0	0 - 9999
c14	Preheat the boiler		0 or 1 *
c15	Boiler preheat temperature (standby)	[°C], preset: 70	0 - 99
c16	Temperature for wastewater cooling	[°C], preset: 80	0 - 100
c17	Low-temp steam bypass temperature	[°C], preset: 87	80 - 100
c18	Auto-steam bypass temperature	[°C], preset: 95	80 - 100
c19	Quick-steam bypass temperature	[°C], preset: 87	80 - 100
c20	Low-temp combi-steam bypass temperature	[°C], preset: 87	80 - 100
c21	Auto combi-steam bypass temperature	[°C], preset: 87	80 - 100
c22	Quick combi-steam bypass temperature	[°C], preset: 87	80 - 100
c23	Supersteam bypass temperature	[°C], preset: 85	80 - 100
c24	Spare		
c25	Restart after power cut	[*10 seconds], Preset: 60	0 - 25920
c26	Restart with compensation	[%], preset: 100	0 - 200
c27	Spare		

Service no.	Output	Comments	Range
c28	Temperature limit for fan speed reduction during low-temperature cooking	[°C], preset: 60	60 - 300
c29	Fan reverse-running time	[sec.], preset: 120	0 - 240
c30	Fan reverse slow-down time	[sec.], preset: 8	0 - 40
c31	Hygienic rinsing of boiler	Preset: 1	1 - 9
c32	Water hardness	4 = very hard water, rinse boiler after running for 5 hours 3 = hard water, rinse boiler after running for 7 hours 2 = normal water, rinse boiler after running for 10 hours 1 = soft water, rinse boiler after running for 20 hours Preset: 4	1 - 4
c33	Salination factor	Preset: 900	100 - 5000
c34	Cooling fan mode	0: Temperature-controlled (standard) 1: Continuously on (gas appliance) Preset: 0	0 or 1 *
c35	Number of cooling fans		0 or 1 *
c36	Gas type	Alters the burner speeds for a change in gas type 0 = Natural gas 2H (E) 1 = Natural gas 2L (LL) 2 = Liquefied gas 3B/P 3 = Propane 3P 4 = Natural gas (USA) 5 = Propane (USA) 6 = Natural gas (AUS/NZ) 7 = Propane (AUS/NZ) 8 = Natural gas 13A (JAP) 9 = Propane (JPN) 10 = Natural gas 13A (KOR) 11 = Propane (KOR) Preset: 0	0 - 11
c37	Convection burner fan: min. speed	[RPM], preset is appliance-specific, e.g.: 2800	2800 - 8000
c38	Convection burner fan: start speed	[RPM], preset is appliance-specific, e.g.: 2800	2800 - 8000
c39	Convection burner fan: max. speed	[RPM], preset is appliance-specific, e.g.: 2800	2800 - 8000

Service no.	Output	Comments	Range
c40	Boiler burner fan: min. speed	[RPM], preset is appliance-specific, e.g.: 2800	2800 - 8000
c41	Boiler burner fan: start speed	[RPM], preset is appliance-specific, e.g.: 2800	2800 - 8000
c42	Boiler burner fan: max. speed	[RPM], preset is appliance-specific, e.g.: 2800	2800 - 8000
c43	Communications attempts, SIB to automatic burner control unit	[attempts], preset: 50	0 - 100
c44	CTP 1 offset	[1/100 °K], preset: 0	-800 - +800
c45	CTP 2 offset	[1/100 °K], preset: 0	-800 - +800
c46	CTP 3 offset	[1/100 °K], preset: 0	-800 - +800
c47	CTP 4 offset	[1/100 °K], preset: 0	-800 - +800
c48	Sous-vide offset	[1/100 °K], preset: 0	-800 - +800
c49	Spare		
c50	Filter change message (Filter Care)	0 = message not shown on display but held in error memory 1 = E10 message Preset: 1	0 or 1 *
c51	Delay for filter change indicator	Preset: 10	5 - 480
c52	ConvoVent mode	0 = off, only ON for specific events 1 = constant low speed, high speed for specific events 2 = constant low speed only during cooking, high speed for specific events (default setting) Preset: 2	0 / 1 / 2
c53	Preheat/cool-down tolerance	[°K], preset: 30	0 - 300
c54	Multi/single-measure dispensing for cleaning	0 = multi-dose 1 = single dosage, Preset: 0 To switch between cleaning with connected canisters and single-measure dispensing: Press 	0 or 1
c55	Volume control	[%], preset: 100	5 - 100
c56	Signal length	0 = continuous, [sec.]	3 - 600
c57	Volume control 2 for cooking when door open	[%], preset: 50	5 - 100
c58	Signal length 2 for cooking when door open	0 = continuous [sec.]	3 - 600
c59	Water filter (Filter Care)	0 = no water filter 1 = water filter connected (Filter Care function enabled)	0 or 1 *
c60	Water filter (Filter Care): NO/NC contact	0 = water-filter NO contact 1 = water-filter NC contact (Brita)	0 or 1 *

Service no.	Output	Comments	Range
c61	Spare		
c62	Ignore boiler rinsing	Number of ignored boiler rinsing prompts before rinsing performed Preset: 3	0 - 10
c63	Preheat tolerance for regenerating	Preheat temperature tolerance for regenerating [°K], preset: 30	0 -300
c64	Spare		
c65	Spare		
c66	Convection period in combi-steam mode	Time measurement in combi-steam mode for parameter C67 Preset: 10	0 - 20
c67	Maximum number of switch-on operations for boiler	Counts number of heater cycles for combi-steam mode in period C66 Preset: 5	5 - 10
c68	Spare		
c69	Max. vent run-on time for door closure	Maximum run-on time for extractor hood (ConvoVent) after door has been closed. [sec.], preset: 20	0 - 65535
c70	Vent start before end of cooking time	Maximum prestart time at max. speed before end of cooking time. [sec.], preset: 5	0 - 60
c71	Vent run-on time when appliance in standby	Run-on time of extractor hood (ConvoVent), from appliance standby until hood switch-off [sec.], preset: 20	0 - 65535
c72	Dehumidifier valve open after closing door	Helps pressure equalization after the appliance door has been closed. [sec.], preset: 0	0 - 60
c73	Signal tower audio signal mode	0 = same as the settings for the combi oven 1 = no audio signal Preset: 0	0 or 1 *
c74	Signal tower colour mode	0 = standard signal in compliance with ISO Machinery Directive 1 = same as indicator ring on the easyDial Preset: 0	0 or 1 *
c75	Spare		
c76	Error delay for injection pressure-switch	Error delay until low water is indicated [sec.], preset: 8	0 - 255
c77	Spare		
c78	Vapour reduction ON	Switch-on temperature for condenser valve [°C], preset: 60	30 - 130
c79	Vapour reduction OFF	Switch-off temperature for condenser valve [°C], preset: 40	30 - 100
c80	Spare		

Service no.	Output	Comments	Range
c81	X28 baud rate	Data transmission rate for network setting 0 ... 300 baud 1 ... 1200 baud 2 ... 2400 baud 3 ... 4800 baud 4 ... 9600 baud 5 ... 19200 baud 6 ... 38400 baud 7 ... 57600 baud 8 ... 115200 baud 9 ... 230400 baud Preset: 8	0 - 9
c82	Delta temperature for error threshold of circulation pump error	Wash water must be cooled down by the delta temperature value [°C], preset: 3.00 (gas) / 4.00 (electric)	0 - 10
c83	Temperature sensor SSR, boiler heat sink	Monitoring present	0 or 1*
c84	Temperature sensor SSR, convection heat sink	Monitoring present	0 or 1*
c85	Surface-temperature sensor protection temperature for boiler heating element	Error on over-temperature [°C], preset: EB (180 °C) / GB (145 °C)	100 - 250
c86	Surface-temperature sensor protection temperature for boiler heating element, delay time	Value is active during cooking operation [sec.], preset: 2	0 - 120
c87	Surface-temperature sensor protection temperature for boiler heating element, delay time	Value is active during standby [sec.], preset: 2	0 - 120
C88	Smart preheat	Preset: 2	0 or 1*
C89	Error delay E01.3, filling time	[sec.], preset: 120	0-65535

* 0 = Off
1 = On