

0x0d56b0 [0,0]

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links

- <http://www.ab-log.ru/smart-house/heating-automation/vaillant-rs232>
- http://www.ab-log.ru/smart-house/heating-automation/gaz_meter
- http://old.ethersex.de/index.php/Vaillant_X6_Schnittstelle

boiler serial port

5V TTL level serial but it also accepts 3.3V serial (tested with CP2102 which is 3.3V, but 5V tolerant)

- 1 Not used
2. +5 V (for the first version of the power adapter vrDIALOG, for the operation of the converter RS232-TTL)
3. RX (from the computer to the boiler)
4. TX (from the boiler to the computer)
5. Ground (earth)
6. +24 (Apparently new power adapter on bus eBUS)

Serial port is 9600 8N1

vrDialog

Vailant program to monitor boiler and change parameters

- <http://www.vaillant.nl/professioneel/service-1/software-downloads-1/>
- http://old.ethersex.de/index.php/Vaillant_X6_Schnittstelle

protocol

This is translated and extended version of protocol dump from link above to ease comparison with my boiler

The first line - that we send, the second - the answer of the boiler.
Third line (if exists is difference in my response)
In parentheses is the value that we get.

```
Something like initialize the connection.  
# 07 02 00 00 00 04 C4  
# 08 00 00 9E 0A 0C 6B FD  
< 08 00 00 93 0B 09 FB 0B
```

Minimum design flow temperature

07 00 00 00 C2 01 7C

04 00 [# 23] 33

35 degrees

Start hysteresis

07 00 00 00 C3 01 7E

04 00 [# 02] 12

2 Â°

Hysteresis off

07 00 00 00 C4 01 70

04 00 [# 06] 16

6 Â°

Left before the service

07 00 00 00 AC 02 A3

05 00 [# 0B C2] #FC

3010 hours

Maximum temp filing for DHW

07 00 00 00 A6 01 B4

04 00 [# 55] 45

85 degrees

Maximum time the boiler heating

07 00 00 00 66 01 2D

04 00 [# 2D] 3D

45 degrees

Adjusting the outer t-pair (if connected to the boiler sensor outdoor t-ry)

07 00 00 00 65 01 2B

04 00 [# 00] 10

0 degrees

Maximum design temp boiler

07 00 00 00 E1 01 3A

04 00 [# 46] 56

70 degrees

Pump run after the end of heating (after turning off the burners)

07 00 00 00 64 01 29

04 00 [# 1E] 0E

30 minutes

Collector temperature (if also the boiler sensor is connected)

07 00 00 00 B8 02 8B

06 00 00 00 00 60

0 degrees

Maximum flow temperature heating (in my case only the range of 60 to 83 degrees)

07 00 00 00 A5 01 B2

04 00 [# 52] 42

82 degrees

Vrebya pump run after turning off the boiler

07 00 00 00 63 01 27

04 00 [# 12] 02

18 (180)

Shifting values â hotstart

07 00 00 00 9D 01 C2

04 00 07 17

7

Partial heat. Boiler

07 00 00 00 A9 01 AA
04 00 [# 01] 11
1 kW

Hours on GVS
07 00 00 00 22 02 A6
05 00 00 00 28
0

Cycles of heating
07 00 00 00 29 02 B0
05 00 00 [# 2B] 03
43

Cycles DHW
07 00 00 00 23 02 A4
05 00 00 00 28
0

There is a feedback controller
07 00 00 00 74 01 09
04 00 00 10
0 (OFF)

Status signal DCF
07 00 00 00 69 01 33
04 00 00 10
0 (no reception)

VUV Mittenstellung
07 00 00 00 45 01 6B
04 00 00 10
0 (OFF)

Counter 3 ignition attempts
07 00 00 00 6F 01 3F
04 00 0A 1A
10

Unsuccessful automatic ignition
07 00 00 00 1F 01 DF
04 00 0A 1A
10

Number of trips thermal protection
07 00 00 00 20 01 A1
04 00 00 10
0

Outdoor temperature
07 00 00 00 6A 03 37
06 00 FC 39 AA 63
-60.44

T-pa boiler SC down
07 00 00 00 B6 02 97
06 00 FF 21 AA 5F
-13.94

T ra feed
07 00 00 00 18 03 D3
06 00 01 76 00 88
23.38 / no errors

Start the timer by GVL
07 00 00 00 71 01 03

04 00 01 11
1 (ON)

Mode

07 00 00 00 08 01 F1
04 00 01 11
1 (winter)

Request to heat DHW C1 / C2

07 00 00 00 58 01 51
04 00 00 10
0 (OFF)

Ionisation current

07 00 00 00 73 02 04
05 00 FC EC 25
64748.00

Circulation pump for boiler layered

07 00 00 00 E0 01 38
04 00 00 10
0 (OFF)

Pumps UK

07 00 00 00 DF 01 46
04 00 00 10
0 (OFF)

The circulation pump

07 00 00 00 AF 01 A6
04 00 00 10
0 (OFF)

Pump heating boiler

07 00 00 00 01 9E C4
04 00 00 10
0 (OFF)

External heating pump

07 00 00 00 3F 01 9F
04 00 00 10
0 (OFF)

Built-in pump

07 00 00 00 44 01 69
0 (OFF)

Calc. temp an external regulator 7-8-9

07 00 00 00 25 02 A8
05 00 05 A0 82
90,00

Room thermostat

07 00 00 00 01 0E FD
04 00 00 10
0 (OFF)

The design temperature of the boiler

07 00 00 00 04 02 EA
05 00 00 F0 D8
15 degrees

The calculated flow temperature, the handle on the panel

07 00 00 00 19 02 D0
05 00 02 30 1C
35 degrees

The temperature of the boiler

07 00 00 00 17 03 CD

06 00 FF 21 AA 5F

-13.94 Degrees

The flow sensor HS

07 00 00 00 16 03 CF

06 00 FF 21 AA 5F

-13.94

Record the values $\hat{\quad}$ $\hat{\quad}$ in the boiler:

The second byte is 0x80

The fifth byte - Register

Sixth byte - value

Seventh - CRC (checksum)

Example, set the value of the pump run - 31 minutes (value 0x1F)

Register 0x64

07 80 00 00 64 1F FF

If all goes well, the boiler will return the following sequence.

03 00 06