

# Content

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# 1 Vaillant Commands (Service B5h)

## 1.1 Get Date/Time (Service B5h 04h)

Name: **Get Date/Time (B5h 04h)**

Description:  
Comm. Load:

Master/ Slave Byte-No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ	Target address					
M3	PB = B5h	Vaillant command					
M4	SB = 04h	Get Date/Time					
M5	NN = 01h	Length of data					
M6	00h						
M7	CRC						
S1	ACK						
S2	NN = 0Ah	Length of data					
S3	00h 01h 02h 03h	DCF77 status: no reception reception synchronized data valid			BYTE		
S4	ss	Seconds	Sec	0..59	BCD		
S5	min	Minutes	Min	0..59	BCD		
S6	hh	Hours	Hour	0..59	BCD		
S7	dd	Day		1..31	BCD		
S8	mm	Month		1..12	BCD		
S9	ww	Weekday		1..7	BCD		
S10	yy	Year		0..99	BCD		
S11	TA_L	Outside temperature	°C	-50,0 – 50,0	DATA2b [1/256]		
S12	TA_H						
S13	CRC						
M8	ACK						
M9	SYN						

## 1.2 Unknown Broadcast 1 (Service B5h 05h)

**Name:** Unknown Broadcast 1 (B5h 05h)

**Description:**

**Comm. Load:**

Master/ Slave Byte- No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ = FEh	Target address					Broadcast
M3	PB = B5h	Vaillant command					
M4	SB = 05h	Unknown broadcast 1					
M5	NN = 02h	Length of data					
M6	xx = 04h xx = 29h						unknown
M7	yy = 00h						unknown
M8	CRC						
M9	SYN						

### 1.3 Unknown Broadcast 2 (Service B5h 06h)

**Name:** Unknown Broadcast 2 (B5h 06h)

**Description:**

**Comm. Load:**

Master/ Slave Byte-No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ = FEh	Target address					Broadcast
M3	PB = B5h	Vaillant command					
M4	SB = 06h	Unknown broadcast 2					
M5	NN = 02h	Length of data					
M6	xx = 00h						unknown
M7	yy = 00h						unknown
M8	CRC						
M9	SYN						

Master/ Slave Byte-No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ = FEh	Target address					Broadcast
M3	PB = B5h	Vaillant command					
M4	SB = 06h	Unknown broadcast 2					
M5	NN = 01h	Length of data					
M6	xx = 01h						unknown
M7	CRC						
M8	SYN						

## 1.4 Operational Data from Room Controller to Burner Control Unit (Service B5h 10h)

<b>Name:</b>	<b>Operational Data from Room Controller to Burner Control Unit (B5h 10h)</b>
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<b>Description:</b>
<b>Comm. Load:</b>

Master/ Slave Byte- No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ	Target address					
M3	PB = B5h	Vaillant command					
M4	SB = 10h	Operational Data from Room Controller to Burner Control Unit					
M5	NN = 09h	Length of data					
M6	xx <sub>1</sub>						unknown, always 00h
M7	xx <sub>2</sub>						unknown, always 00h
M8	LT	Lead water target temperature (Vorlauftemperatur)	°C	0 – 100	DATA1c		
M9	ST	Service water target temperature	°C	0 – 100	DATA1c		
M10	xx <sub>3</sub>						unknown, always FFh
M11	xx <sub>4</sub>						unknown, always FFh
M12	xx <sub>5</sub> = 00h = 01h = 04h = 05h = 40h = 41h = 44h = 45h				(BIT ?)		unknown
M13	xx <sub>6</sub>						unknown, always FFh
M14	xx <sub>7</sub>						unknown, always 00h
M15	CRC						
S1	ACK						
S2	NN = 01h	Length of data					
S3	zz = 01h	(acknowledge ?)					unknown
S4	CRC						
M16	ACK						
M17	SYN						

## 1.5 Operational Data of Burner Control Unit to Room Control Unit (Service B5h 11h Block 1)

<b>Name:</b>	<b>Operational Data of Burner Control Unit to Room Control Unit (B5h 11h Block 1)</b>
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<b>Description:</b>
<b>Comm. Load:</b>

Master/ Slave Byte- No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ	Target address					
M3	PB = B5h	Vaillant command					
M4	SB = 11h	Operational Data					
M5	NN = 01h	Length of data					
M6	01h	Block number					
M7	CRC						
S1	ACK						
S2	NN = 09h	Length of data					
S3	VT	Lead water temperature (Vorlauf-/ Anlagentemperatur)	°C	0 – 100	DATA1c		
S4	NT	Return water temperature (Nachlauftemperatur)	°C	0 – 100	DATA1c		
S5	TA_L	Outside temperature	°C	-50,0 – 50,0	DATA2b [1/256]		
S6	TA_H						
S7	WT	(WW-Auslauftemperatur)	°C	0 – 100	DATA1c		
S8	ST	Service water temperature (WW-Speichertemperatur)	°C	0 – 100	DATA1c		
S9	vv	Bit 0: Heating Bit 1: Service Water			BIT		0 = OFF 1 = ON
S10	xx <sub>1</sub>						unknown, always 00h
S11	xx <sub>2</sub>						unknown, always FFh
S12	CRC						
M8	ACK						
M9	SYN						

## 1.6 Operational Data of Burner Control Unit to Room Control Unit (Service B5h 11h Block 2)

<b>Name:</b>	<b>Operational Data of Burner Control Unit to Room Control Unit (B5h 11h Block 2)</b>
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<b>Description:</b>
<b>Comm. Load:</b>

Master/ Slave Byte- No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ	Target address					
M3	PB = B5h	Vaillant command					
M4	SB = 11h	Operational Data					
M5	NN = 01h	Length of data					
M6	02h	Block number					
M7	CRC						
S1	ACK						
S2	NN = 05h	Length of data					
S3	xx <sub>1</sub>						unknown, always 03h
S4	xx <sub>2</sub>						unknown, always 3Ch
S5	xx <sub>3</sub>						unknown, always 96h
S6	xx <sub>4</sub>						unknown, always 46h
S7	ST	Service water target temperature	°C	0 – 100	DATA1c		
S8	CRC						
M8	ACK						
M9	SYN						

## 1.7 Unknown Command [ping ?] (Service B5h 12h)

**Name:** Unknow command [ping] (B5h 12h)

**Description:**

**Comm. Load:**

Date/Time:

Master/ Slave Byte- No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ	Target address					
M3	PB = B5h	Vaillant command					
M4	SB = 12h	Unknown command [ping ?]					
M5	NN = 02h	Length of data					
M6	xx	?					
M7	yy	?					
M8	CRC						
S1	ACK						
S2	NN = 00h	Length of data					
S3	CRC						
M9	ACK						
M10	SYN						

The following cases were observed:

- Heater Controller (Master 10h) → Firing Automat 1 (Slave 08h):  
xx = 00h, yy = 00h  
xx = 00h, yy = 64h
- Firing Automat 1 (Master 03h) → Pump 1 (Slave 64h):  
xx = 02h, yy = 00h  
xx = 02h, yy = 64h
- Firing Automat 1 (Master 03h) → PC/ Modem (Slave 05h):  
xx = 02h, yy = FEh  
xx = 03h, yy = 00h



## 1.8 Broadcast Service (Service B5h 16h)

**Name:** Broadcast Service (B5h 16h)

**Description:**

**Comm. Load:**

Date/Time:

Master/ Slave Byte-No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ = FEh	Target address					Broadcast
M3	PB = B5h	Vaillant command					
M4	SB = 16h	Broadcast Service					
M5	NN = 08h	Length of data					
M6	00h	Broadcast Date/Time					
M7	ss	Seconds	Sec	0..59	BCD		
M8	min	Minutes	Min	0..59	BCD		
M9	hh	Hours	Hour	0..59	BCD		
M10	dd	Day		1..31	BCD		
M11	mm	Month		1..12	BCD		
M12	ww	Weekday		1..7	BCD		
M13	yy	Year		0..99	BCD		
M14	CRC						
M15	SYN						

Outside Temperature:

Master/ Slave Byte-No.	Abbrev.	Description	Unit	Range	Type/ [Res.]	Repl. Value	Note
M1	QQ	Source address					
M2	ZZ = FEh	Target address					Broadcast
M3	PB = B5h	Vaillant command					
M4	SB = 16h	Broadcast Service					
M5	NN = 03h	Length of data					
M6	01h	Broadcast outside temperature					
M7	TA_L	Outside temperature	°C	-50,0 – 50,0	DATA2b [1/256]		
M8	TA_H						
M14	CRC						
M15	SYN						

## 2 History

2009-09-29: initial release

2009-09-30: added parameter name for S4 at Service B5h 11h Block 1