SMART

CONNECTION TO SMART HOME

VENTO Expert A50-1 W
VENTO Expert Duo A30-1 W

EN

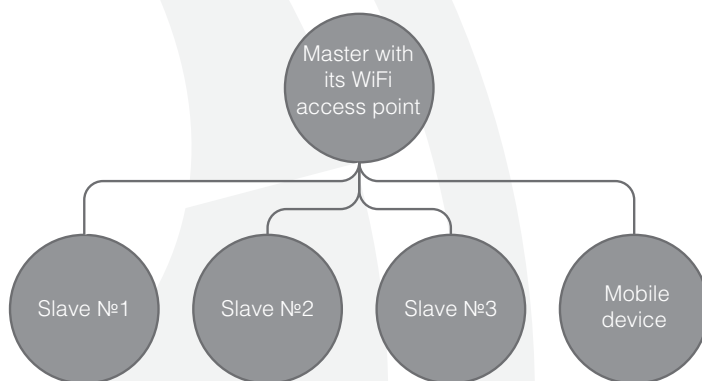## OPERATION MANUAL

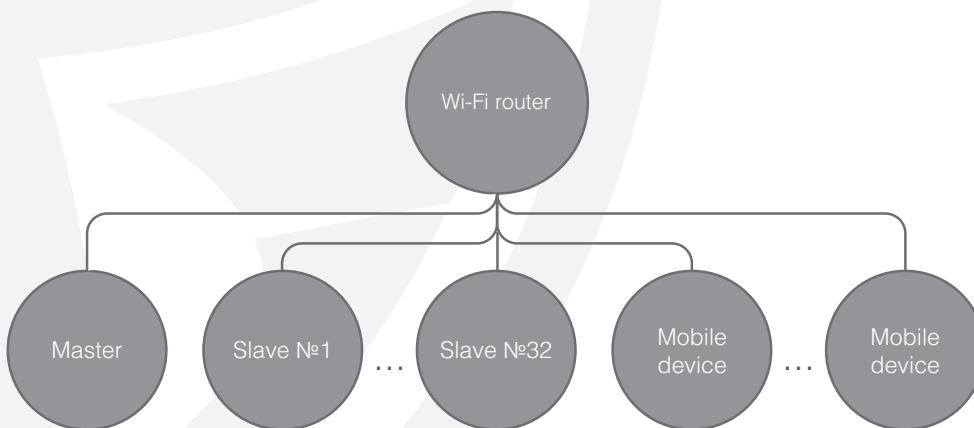BLAUBERG
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PURPOSE

A smart home is controlled only by the designated master device. All other devices such as telephones and the smart home system are slaved to the master one via WiFi. The master automatically transmits control signals to the slaves.

A wireless network can be arranged in two ways:

1.   A master device with its integrated Wi-Fi access point with a maximum of four slave devices connected.
However, if all the four connection slots of the master access point are in use, the master access point becomes inaccessible by a phone or the smart home system.

2.   Master devices, slave devices, phones and smart home system connect to a common router access point via Wi-Fi

In this case the master can simultaneously handle up to 32 slave connections and the smart home system. You can also connect several master devices to the router network to enable zone-specific control.
The connection is set up by launching the Blauberg Vento.exe file on your computer. Please refer to the ventilator user manual for instructions.

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NETWORK PARAMETERS

The unit is controlled via UDP transport protocol.

Master device IP address is
- 192.168.1.4 – the master device runs without a router and has its own WiFi access point (see Connection diagram 1).
- Other IP – the master device connects to the router WiFi access point (Connection diagram 2). The master device IP address is set manually by launching the Blauberg Vento.exe file on your PC.

The master device port is 4000.

CONTROL COMMANDS

0	1	2	3	4	5	6	7...			N-2	N-1
0x6D	0x6F	0x62	0x69	0x6C	0x65	Command1	Value1	Command n	value n	0x0D	0x0A

N is the packet size.

Commands, dec	Description	Value, dec	Size, [bytes]
1	Access of data for the control page (see «Mobile application»)	Any byte	1
2	Unit activation/deactivation	Any byte	1
3	Unit activation/deactivation	Any byte	1
4	Speed selection	1 – Low 2 – Medium 3 – High	1
5	Manual speed setting enabling and setup	22 - 255	1
6	Air flow direction setting	0 – Ventilation 1 – Heat Recovery 2 - Air Supply	1
9	Timer activation/deactivation	1 – Night mode 2 – Party mode	1
11	Humidity sensor threshold setting, [RH%]	40 - 80	1
15	Night mode timer setting, [sec]	0 – 86400	3
16	Party mode timer setting, [sec]	0 – 86400	3
17	Deactivation delay timer setting, [sec]	0 – 86400	3
21	Humidity sensor activation/deactivation	Any byte	1
22	Relay sensor activation/deactivation	Any byte	1
23	0-10 V sensor activation/deactivation (On/Off)	Any byte	1
25	0-10 V sensor threshold setting, [%]	5 - 100	1
27	Access of data for the slave status page (see «Mobile application»)	Any byte	1
28	Master device search	Any byte	1
30	Master device filter timer reset	Any byte	1
31	Cloud server control activation	0 – Off 1 – On	1

Example of unit activation/deactivation and low speed selection

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x03		0x04	0x01	0x0D	0x0A

Example of «Ventilation» air flow direction setting

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x06	0x00	0x0D	0x0A		

Example of night mode timer setting: 24 hours, 00 minutes, 00 seconds

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x03		0x04	0x01	0x0D	0x0A

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FEEDBACK

0	1	2	3	4	5	6	7...			
0x6D	0x61	0x73	0x74	0x65	0x72	Parameter1	value1	…	Parameter n	value n

Parameters, dec	Description	Value, dec	Size, [bytes]
3	Device status (On/Off)	0 – Off 1 – On	1
4	Selected speed	1 – Low 2 – Medium 3 – High 4 – Manual	1
5	Manual speed setting value	22 - 255	1
6	Air flow direction	0 – Ventilation 1 – Heat Recovery 2 – Air Supply	1
8	Current humidity level, [RH%]	39 - 90	1
9	Operation mode	0 – Regular 1 – Night mode 2 – Party mode	1
11	Humidity sensor activation threshold, [RH%]	40 - 80	1
12	Alarm status (emergency stop)(status bar)	0 – No 1 – Yes	1
13	Relay sensor status (status bar)	0 – No 1 – Yes	1
14	Party mode / night mode timer countdown, [sec]	0 – 86400	3
15	Current night time mode timer setting, [sec]	0 – 86400	3
16	Current party mode timer setting, [sec]	0 – 86400	3
17	Current deactivation delay timer setting (boost mode), [sec]	0 – 86400	3
18	Filter end of life message (status bar)	0 – 86400	1
19	Humidity sensor status (status bar)	0 – No 1 – Yes	1
20	BOOST mode after any sensor response (status bar)	0 – No 1,2 – Yes	1
21	Humidity sensor	0 — Off 1 – On	1
22	Relay sensor	0 — Off 1 – On	1
23	0 – 10 V sensor	0 — Off 1 – On	1
25	0 – 10 V sensor activation threshold, [%]	5 - 100	1
26	0 – 10 V sensor status (status bar)	0 — Off 1 – On	1
27	Slave device search	0 – offline >0 – online	32
28	Response to «Slave device search» request	IP address	4
31	Cloud server control activation status	0 — Off 1 – On	1
37	0 – 10 V sensor current status	0 – 100	1

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There are four types of feedback packets:
1. Control page data. Parameters: 3,9,12,19,13,26,4,5,6,8,14,18,20,37
2. Settings page data. Parameters: 11,21,22,23,15,16,17,25,31
3. Slave device search data: Parameters: 27
4. Response to «Slave device search» request. Parameters: 28

Feedback packet 1 is sent in response to control commands 1,3,4,5,6,9 and 30.
Feedback packet 2 is sent in response to control commands 2,21,22,23 and 31.
Feedback packet 3 is sent in response to control command 27.
Feedback packet 4 is sent in response to control command 28.

Example of data request for the control page
Request:

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x01		0x0D	0x0A

Response:

0x6D	0x61	0x73	0x74	0x65	0x72	0x03	0x01	0x09	0x00	0x0C	0x00	0x13	0x00
0x0D	0x00	0x1A	0x00	0x04	0x02	0x05	0x3C	0x06	0x00	0x08	0x32		
0x0E	0x00	0x00	0x00	0x12	0x00	0x14	0x00						

Example of data request for the settings page
Request:

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x02		0x0D	0x0A

Response:

0x6D	0x61	0x73	0x74	0x65	0x72	0x0B	0x46	0x15	0x01	0x16	0x01		
0x17	0x01	0x0F	0x00	0x70	0x80	0x10	0x00	0x38	0x40	0x11	0x00	0x07	0x8
0x19	0x32												

This response displays the night mode timer setting: 08:00:00, party mode timer setting: 04:00:00, delay timer setting: 00:30:00 and other parameters.

Example of data request for the slave device search page
Request:

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x1B		0x0D	0x0A

Response:

0x6D	0x61	0x73	0x74	0x65	0x72	0x1B	0x6E	0x69	0xB4	0xC8	0xAA	0x00	0x00
0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00			

Example of slave device search
Request:

0x6D	0x6F	0x62	0x69	0x6C	0x65	0x1C		0x0D	0x0A

Response:

0x6D	0x61	0x73	0x74	0x65	0x72	0x1C	0xC0	0xA8	0x00	0x02

This response displays the master device IP address which is 192.168.0.2

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