Z-Wave Wall Controller

DA_VINCI_Z-WAVE: Wall Controller

Firmware Version 2.0

1. General Information about Z-Wave

1.1 Safe

Generally, radio systems build a direct link between the transmitter and the receiver. The radio signal is attenuated by every obstacle along its path (in the household e.g. wall, furniture etc). In the worst case the radio system ceases to function. The advantage of the intelligent Z-Wave system is the so-called routing function. This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

1.2 Communicative

Z-Wave is a bidirectional radio system. This means that a signal is not just sent but also a feedback confirming the reception of the signal occurs automatically. The safety of transmission of the Z-Wave radio-bus-technology is comparable with that of a wire-linked bus system. It is likewise possible to determine the switching status by pushing a button: Has the cellar light been definitely switched off?

1.3 Trouble—free

Z-Wave transmits at a regulated frequency band with a frequency of 916 MHz. Every Z-Wave network has its own unique network identification. Therefore, it is possible to operate two or more independently operating networks in a room or home without any interference. Troubles that can be caused by other devices, as is the case in open, non-regulated frequencies (e.g. 433 MHz) are excluded.

1.4 Established

The Z-Wave technology has already developed to form a technical standard. Renowned manufacturers from various fields offer solutions and applications that are based on Z-Wave technology and compatible among one another. This makes the system fit for the future and promises further upgrade phases. Further

information can be found on www.z-wave.com.

1.5 Dynamic

Z-Wave is equipped with a dynamic network structure. Right from the start, the position of the individual Z-Wave device that is supplied with 230 Volts is monitored and automatically updated in the case of changes. As a means of which it is possible to continuously adapt the network to its individual requirements, wholly automatically without the necessity of any programming tasks.

2. Before Installation/Setup

Please read carefully the enclosed user manual before the in order to ensure an error-free functioning. The product is permitted only for proper use as specified in the user manual. Any kind of guarantee claim has to be forfeited if changes, modifications or painting are undertaken. The product must be checked for damages immediately after unpacking. In the case of damages, the product must not be operated in any case. If a danger-free operation of the equipment cannot be assured, the voltage supply has to be immediately interrupted and the equipment has to be protected from unintended operation.

3. Product Description

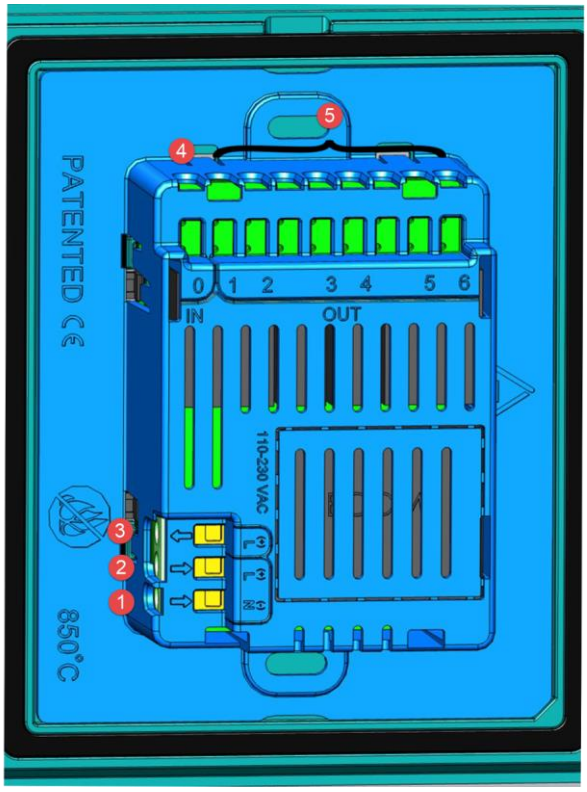
The **Da Vinci** wall controller is a Multi Chanel Z-Wave device that contains up to 6 relays and up to 9 touch buttons that can be set to control either the relays or any other on/off (SWITCH_BINARY) Z-Wave device.

Headquarters: 17th' Hamesila St', Nesher
Branches: Haifa, Hertzlia, Ashdod
Phone: +972-5-03388993 Fax: +972-77-3322332
info@contec.co.il www.contec.co.il

4. Installation

The device can be mounted into every GEWISS 3 or 4 gang.

1. Netural
2. Device line: 110 - 230 VAC
3. Line jumper for the relays (4)
4. Relays Input (12 - 230 VAC)
5. Relays output (The output number is accordance to the touch button number)



5. Functions/operation

5.1 *Add / Remove from network*

Press the #1 button 3 times.

5.2 Reset of the device

Double Press the following buttons in the
Following order 8,1,3.
Use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

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5.3 Basic command

Basic command is same as Switch binary command.
The basic set command is used to change to status of buttons 1-9.
Values:
0x01..0x63 / 0xFF – Turn on
0x00 – Turn off

5.4 Association groups

5.4.1 Root device

Group #	Associated endpoint	Max Nodes	Execute command class
1		5	Lifeline
2	1	5	SWITCH_BINARY_SET
3	1	5	SWITCH_BINARY_REPORT
4	1	5	SWITCH_MULTILEVEL_SET
5	1	5	SWITCH_MULTILEVEL_REPORT
6	2	5	SWITCH_BINARY_SET
7	2	5	SWITCH_BINARY_REPORT
8	2	5	SWITCH_MULTILEVEL_SET
9	2	5	SWITCH_MULTILEVEL_REPORT
10	3	5	SWITCH_BINARY_SET
11	3	5	SWITCH_BINARY_REPORT
12	3	5	SWITCH_MULTILEVEL_SET
13	3	5	SWITCH_MULTILEVEL_REPORT
14	4	5	SWITCH_BINARY_SET
15	4	5	SWITCH_BINARY_REPORT
16	4	5	SWITCH_MULTILEVEL_SET
17	4	5	SWITCH_MULTILEVEL_REPORT
18	5	5	SWITCH_BINARY_SET
19	5	5	SWITCH_BINARY_REPORT
20	5	5	SWITCH_MULTILEVEL_SET
21	5	5	SWITCH_MULTILEVEL_REPORT
22	6	5	SWITCH_BINARY_SET
23	6	5	SWITCH_BINARY_REPORT
24	6	5	SWITCH_MULTILEVEL_SET

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25	6	5	SWITCH_MULTILEVEL_REPORT
26	7	5	SWITCH_BINARY_SET
27	7	5	SWITCH_BINARY_REPORT
28	7	5	SWITCH_MULTILEVEL_SET
29	7	5	SWITCH_MULTILEVEL_REPORT
30	8	5	SWITCH_BINARY_SET
31	8	5	SWITCH_BINARY_REPORT
32	8	5	SWITCH_MULTILEVEL_SET
33	8	5	SWITCH_MULTILEVEL_REPORT
34	9	5	SWITCH_BINARY_SET
35	9	5	SWITCH_BINARY_REPORT
36	9	5	SWITCH_MULTILEVEL_SET
37	9	5	SWITCH_MULTILEVEL_REPORT

5.4.2 Endpoints

Endpoint 1:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 1	CENTRAL_SCENE_NOTIFICATION	Button 1 via lifeline
2	Control : Button 1	SWITCH_BINARY_SET	On/Off control (Button 1)
3	Control : Button 1	SWITCH_BINARY_REPORT	On/Off Report (Button 1)
4	Control : Button 1	SWITCH_MULTILEVEL_SET	Multilevel control (Button 1)
5	Control : Button 1	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 1)

Endpoint 2:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 2	CENTRAL_SCENE_NOTIFICATION	Button 1 via lifeline
2	Control : Button 2	SWITCH_BINARY_SET	On/Off control (Button 2)
3	Control : Button 2	SWITCH_BINARY_REPORT	On/Off Report (Button 2)
4	Control : Button 2	SWITCH_MULTILEVEL_SET	Multilevel control (Button 2)
5	Control : Button 2	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 2)

Endpoint 3:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 3	CENTRAL_SCENE_NOTIFICATION	Button 1 via lifeline
2	Control : Button 3	SWITCH_BINARY_SET	On/Off control (Button 3)
3	Control : Button 3	SWITCH_BINARY_REPORT	On/Off Report (Button 3)
4	Control : Button 3	SWITCH_MULTILEVEL_SET	Multilevel control (Button 3)
5	Control : Button 3	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 3)

Endpoint 4:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 4	CENTRAL_SCENE_NOTIFICATION	Button 1 via lifeline
2	Control : Button 4	SWITCH_BINARY_SET	On/Off control (Button 4)
3	Control : Button 4	SWITCH_BINARY_REPORT	On/Off Report (Button 4)
4	Control : Button 4	SWITCH_MULTILEVEL_SET	Multilevel control (Button 4)
5	Control : Button 4	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 4)

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Endpoint 5:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 5	CENTRAL_SCENE_NOTIFICATION	Button 5 via lifeline
2	Control : Button 5	SWITCH_BINARY_SET	On/Off control (Button 5)
3	Control : Button 5	SWITCH_BINARY_REPORT	On/Off Report (Button 5)
4	Control : Button 5	SWITCH_MULTILEVEL_SET	Multilevel control (Button 5)
5	Control : Button 5	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 5)

Endpoint 6:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 6	CENTRAL_SCENE_NOTIFICATION	Button 6 via lifeline
2	Control : Button 6	SWITCH_BINARY_SET	On/Off control (Button 6)
3	Control : Button 6	SWITCH_BINARY_REPORT	On/Off Report (Button 6)
4	Control : Button 6	SWITCH_MULTILEVEL_SET	Multilevel control (Button 6)
5	Control : Button 6	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 6)

Endpoint 7:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 7	CENTRAL_SCENE_NOTIFICATION	Button 7 via lifeline
2	Control : Button 7	SWITCH_BINARY_SET	On/Off control (Button 7)
3	Control : Button 7	SWITCH_BINARY_REPORT	On/Off Report (Button 7)
4	Control : Button 7	SWITCH_MULTILEVEL_SET	Multilevel control (Button 7)
5	Control : Button 7	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 7)

Endpoint 8:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 8	CENTRAL_SCENE_NOTIFICATION	Button 8 via lifeline
2	Control : Button 8	SWITCH_BINARY_SET	On/Off control (Button 8)
3	Control : Button 8	SWITCH_BINARY_REPORT	On/Off Report (Button 8)
4	Control : Button 8	SWITCH_MULTILEVEL_SET	Multilevel control (Button 8)
5	Control : Button 8	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 8)

Endpoint 9:

Group	*Profile*	*Command class*	*Group name*
1	Control : Button 9	CENTRAL_SCENE_NOTIFICATION	Button 9 via lifeline
2	Control : Button 9	SWITCH_BINARY_SET	On/Off control (Button 9)
3	Control : Button 9	SWITCH_BINARY_REPORT	On/Off Report (Button 9)
4	Control : Button 9	SWITCH_MULTILEVEL_SET	Multilevel control (Button 9)
5	Control : Button 9	SWITCH_MULTILEVE_REPORT	Multilevel Report (Button 9)

5.5 Configuration

Parameter number	Possible values	Default value	Description
1	0=on/off 1=blind up 2=blind down	0	EP 1 Type
2	1 - 9	0	EP 1 Partner Id

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3	3 - 127	0	EP 1 Blind Duration
4	1 - 6	1	EP 1 Output
5	0=on/off 1=blind up 2=blind down	0	EP 2 Type
6	1 - 9	0	EP 2 Partner Id
7	3 - 127	0	EP 2 Blind Duration
8	1 - 6	2	EP 2 Output
9	0=on/off 1=blind up 2=blind down	0	EP 3 Type
10	1 - 9	0	EP 3 Partner Id
11	3 - 127	0	EP 3 Blind Duration
12	1 - 6	3	EP 3 Output
13	0=on/off 1=blind up 2=blind down	0	EP 4 Type
14	1 - 9	0	EP 4 Partner Id
15	3 - 127	0	EP 4 Blind Duration
16	1 - 6	4	EP 4 Output
17	0=on/off 1=blind up 2=blind down	0	EP 5 Type
18	1 - 9	0	EP 5 Partner Id
19	3 - 127	0	EP 5 Blind Duration
20	1 - 6	5	EP 5 Output
21	0=on/off 1=blind up 2=blind down	0	EP 6 Type
22	1 - 9	0	EP 6 Partner Id

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23	3 - 127	0	EP 6 Blind Duration
24	1 - 6	6	EP 6 Output
25	0=on/off 1=blind up 2=blind down	0	EP 7 Type
26	1 - 9	0	EP 7 Partner Id
27	3 - 127	0	EP 7 Blind Duration
28	1 - 6	0	EP 7 Output
29	0=on/off 1=blind up 2=blind down	0	EP 8 Type
30	1 - 9	0	EP 8 Partner Id
31	3 - 127	0	EP 8 Blind Duration
32	1 - 6	0	EP 8 Output
33	0=on/off 1=blind up 2=blind down	0	EP 9 Type
34	1 - 9	0	EP 9 Partner Id
35	3 - 127	0	EP 9 Blind Duration
36	1 - 6	0	EP 9 Output

Notes:

- Output – Relay number
- When setting EP to blind, Partner Id EP also change to blind (opposite direction).
- Blind must contains Partner Id which is different than 0 and it must be unique.
- Parameters – Partner Id and Duration cannot be configure for switch
- When setting blind to switch, Partner Id also change to switch
- Parameters don't change when exclude from network or while device locally reset
- The parameter size is 2.

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5.6 Supported Command Classes

- Association Command Class(V2)
- Association Group Information Command Class(V1)
- Basic Command Class (V1)
- Binary Switch Command Class (V1)
- Multilevel Switch Command Class (V4)
- Central Scene Command Class (V1)
- Device Reset Locally Command Class (V1)
- Manufacturer Specific Command Class (V1)
- Multi Channel Command Class (V4)
- Multi Channel Association Command Class (V3)
- Powerlevel Command Class (V1)
- Version Command Class (V2)
- Z-Wave Plus Info Command Class (V2)
- Configuration Command Class (V2)

5.7 Z-Wave Device Types

- Generic: On/Off Power Switch - Device Type
- Specific: Wall Controller

6. Technical data

- Frequency: 921.42 MHz
- Dimensions: 10 x 8 x 40 mm
- Association Groups: 19
- Operating temperature: 0°C to +75°C

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