KNX ref. 1860252

LON ref. 1860253

animeo®
KNX Shadow Device WM
LON Shadow Device WM

Operating Manual

somfy®

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1. Description of functions

The **KNX shadow device** stores the relevant data which is derived from a building model provided by Somfy. It is essential in conjunction with the animeo KNX Master Control to realize **zone based** shadow management for buildings.
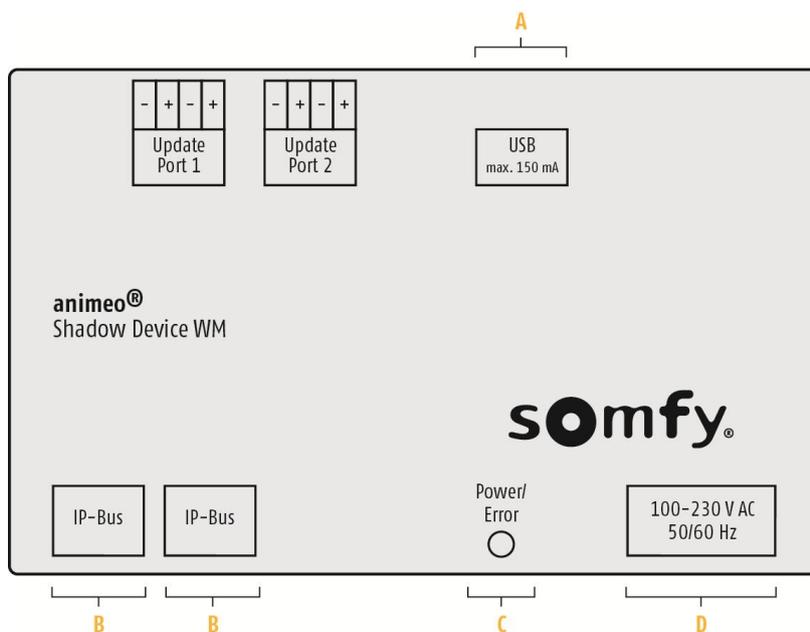
The **LON shadow device** stores the relevant data which is derived from a building model provided by Somfy. It is essential in conjunction with the animeo LON Motor Conroller to realize **window based** shadow management for buildings
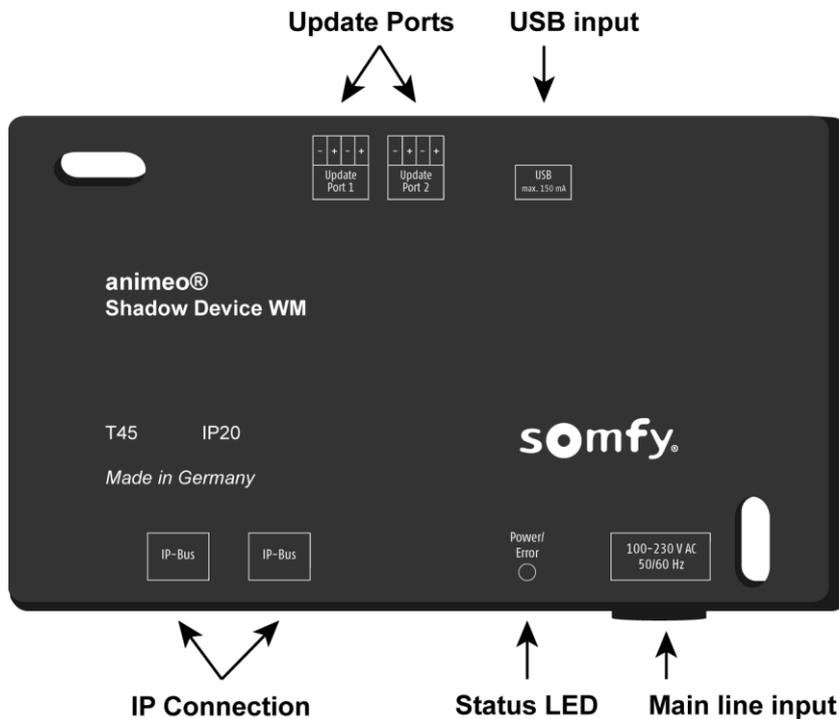
1.1. Product content

The product portfolio consists of the Shadow Device, an EU power cable and the installation guide.

1.2. Wiring

A = USB (input/output) max. 150 mA (for maintenance only).
B = IP Bus (input/output)
C = Display voltage/malfunction
  Green = normal
  Red = malfunction
D = Power supply (input)
  (type of cable and length see table in chapter 5)

2. Device overview

2.1. Update Ports

These ports are used during firmware update (cf. 5).

2.2. USB Input

This USB port is used for:
- Firmware upgrades (cf.5)
- Recovery from wrong IP configuration (cf.3.4)
- Obtaining a "lost" IP address (cf. 3.3)
- Updating the Shadow Database (cf. 4.1)

2.3. IP Connection

There are two IP ports available to connect the Shadow Device to a network. These two ports have an embedded switch inside to facilitate installation of the Shadow Device.

2.4. Status LED

This LED displays the current status of the Shadow Device:

- Green heartbeat → Normal operating mode
- Fast red flashing → Firmware upgrade mode
- Fast green flashing → Shadow Device update mode
- Slow green flashing → Shadow Device start-up mode

3. IP configuration

3.1. Default configuration

The Shadow Device comes out of the box with a default IP configuration:
- IP address: 192.168.0.3
- Netmask: 255.255.255.0

3.2. Settings

A configuration webpage is embedded inside the Shadow Device to enable changes to the IP address.

To access this page you need to:
1. Set your computer network to the same subnet (Ex: 192.168.0.5)
2. Open a web browser using this web address: http://192.168.0.3/
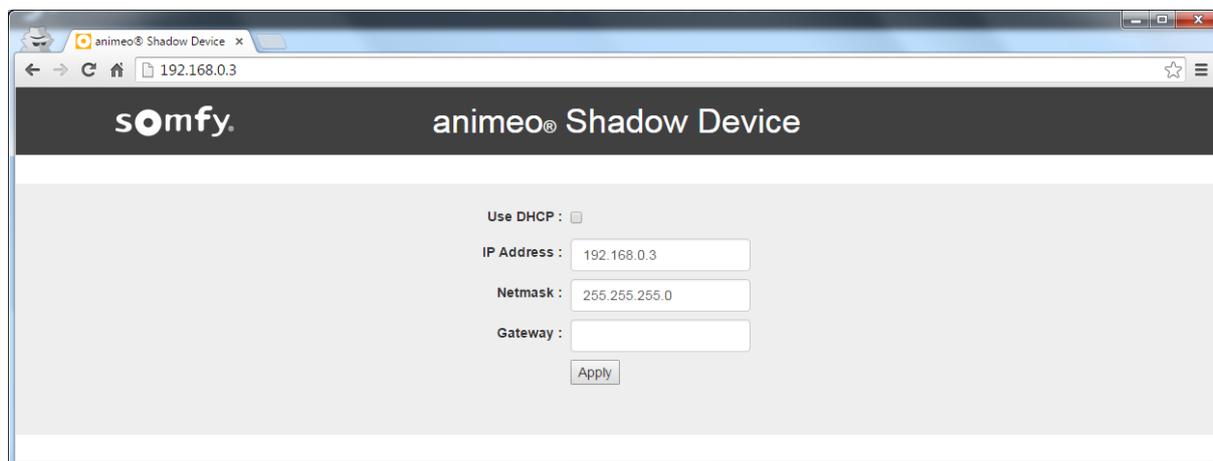
3.2.1. Static IP configuration

Leave the "Use DHCP" option unchecked. Set required values for "IP Address" and "Netmask". Using the "Gateway" value is optional.
When done, click "Apply".
Settings are saved and the IP configuration using these new values is automatically applied to the Shadow Device.
N.B.: your web browser will be automatically redirected to this new IP address.

3.2.2. DHCP

Check the "Use DHCP" option on the webpage. Other options are now ignored by the Shadow Device.
When done, click "Apply".
N.B.: because the Shadow Device asks for an IP address on the network, your web browser CANNOT be automatically redirected. Ask your IT management to give you the new Shadow Device IP address or use the "get lost IP address" method (cf. 3.3).

3.3.   Get current IP address (prototype)

If you cannot remember the IP configuration setting or you cannot ask your IT management for the DHCP address retrieved by the Shadow Device, you can use the USB Port to get the current IP configuration.

1. Get a USB stick.
2. Using your computer, create a file named "getipconfig" in the root folder of the USB stick.

Nom	Modifié le	Type	Taille
getipconfig	20/05/2015 20:21	Fichier	0 Ko

3. Plug the USB stick into the USB port of the Shadow Device for at least 10 seconds.
4. The "getipconfig" file will be replaced by a text file with the current Shadow Device IP configuration.
5. Remove the USB stick from the Shadow Device.
6. Using your computer, open the "ifconfig_result.txt" file.

Nom	Modifié le	Type	Taille
ifconfig_result.txt		Fichier TXT	1 Ko

7. The current IP configuration is available under "eth0" information.

```
1   eth0      Link encap:Ethernet  HWaddr 00:05:51:08:8B:86
2             inet addr:192.168.0.3  Bcast:192.168.0.255  Mask:255.255.255.0
3             UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
4             RX packets:1726 errors:256 dropped:0 overruns:0 frame:0
5             TX packets:1221 errors:256 dropped:0 overruns:0 carrier:256
6             collisions:0 txqueuelen:1000
7             RX bytes:224412 (219.1 KiB)  TX bytes:1622064 (1.5 MiB)
8             Interrupt:21 Base address:0x4000
9
10  lo        Link encap:Local Loopback
11            inet addr:127.0.0.1  Mask:255.0.0.0
12            UP LOOPBACK RUNNING  MTU:16436  Metric:1
13            RX packets:0 errors:0 dropped:0 overruns:0 frame:0
14            TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
15            collisions:0 txqueuelen:0
16            RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)
17
```

3.4.   Reset IP configuration to default

You can reset the Shadow Device to the default IP configuration (cf. 3.1).

1. Get a USB stick.
2. Using your computer, create a file named "recoveripconfig" in the root folder of the USB stick.

Nom	Modifié le	Type	Taille
recoveripconfig	21/05/2015 09:02	Fichier	0 Ko

3. Plug the USB stick into the USB port of the Shadow Device for at least 10 seconds.
4. The "recoveripconfig" file will be replaced by a "recoveripconfig_done" file
5. Remove the USB stick from the Shadow Device.
6. The Shadow Device now has the default IP configuration.

4. Shadow Database

Out of the box, the Shadow Device generates its own "fake" database from random values. This database contains 23 zones.

4.1. Updating the Shadow Database

To update the Shadow Device database, you can use the USB Port:

1. Get a USB stick.
2. Using your computer, create a folder named "ShadowDB" in the root folder of the USB stick. Use of upper/lower-case characters is important!
3. Copy all the Shadow Database files from a project into this "ShadowDB" folder.
4. Plug the USB stick into the USB port of the Shadow Device.
5. The Shadow Device status LED will blink fast in green during the update, then reboot.
6. When the status LED indicates the normal status (green heartbeat), you can remove the USB stick.
7. The Shadow Device now has the updated database.

5.   Firmware updates

It is possible to update the firmware using the USB port and the two update ports.

1. Get a USB stick.
2. Using your computer, copy the new firmware into the root folder of the USB stick. Make sure the firmware file name is "update.bpk2". Rename it if necessary. Use of upper/lower-case characters is important!
3. Plug the USB stick into the USB port of the Shadow Device.
4. Crosswire the two update ports.
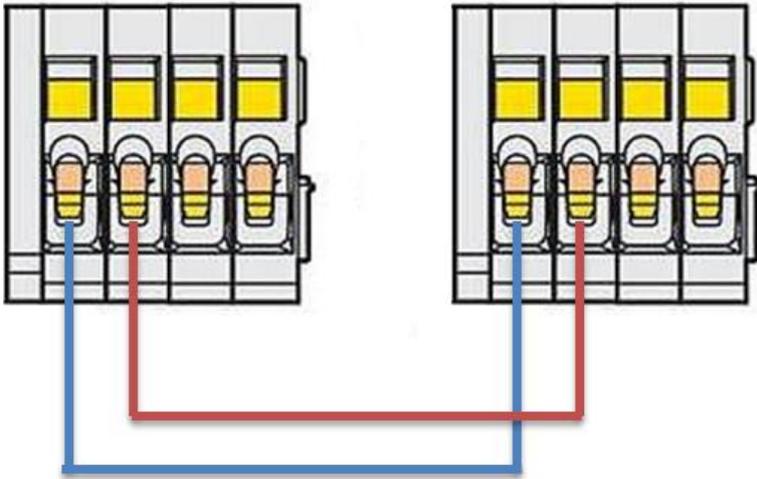
5. Unplug the main power supply cable.
6. Wait for at least 2 seconds.
7. Plug in the main power supply cable.
8. The Shadow Device status LED will blink fast in green during the update, then reboot.
9. When the status LED indicates the normal status (green heartbeat), you can remove the USB stick and disconnect the cables from the update ports.
10. The Shadow Device now has the updated database.

6. Characteristics

	KNX ref. 1860252 LON ref. 1860253
Supply voltage	100 – 230 V AC / 50/60 Hz
Max. operating current	< 40 mA @ 230 V AC 80 mA @ 120 V AC
Stand-by current	< 4 W @ 230 V AC < 4 W @ 120 V AC
Operating temperature	0° C to 45° C
Relative humidity	85 %
Housing material	PC-ABS polycarbonate
Housing dimensions (wxhxd)	100 x 175 x 50 mm
Degree of protection	IP 20
Protection class	II
Conformity	www.somfy.com/ce

The Shadow Device is an electronically and independently-mounted control.

- Class A control function
- Type 1 action
- Pollution degree: 2
- Rated impulse voltage: 4 kV
- Temperature of the ball hardness test: 75° C
- Type X attachment
- Connection method for non-detachable cables: screwless spring terminals
- EMC emission test: U_{AC} = 230 V AC I_{AC} = 0.06 A
  (EN 55022 Class B emission)

7. Contact

7.1. Internet

www.somfy.com/
www.somfyarchitecture.com

Somfy
50 Avenue du Nouveau Monde
BP 250 – 74307 Cluses Cedex
France
T +33 (0)4 50 96 70 00
F +33 (0)4 50 96 71 89
www.somfyarchitecture.com
www.somfy.com

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