Table of Contents

1. Description of functions ................................................................. 3
   1.1. Product content ........................................................................... 3
   1.2. Wiring ......................................................................................... 3

2. Device overview .................................................................................. 4
   2.1. Update Ports ................................................................................ 4
   2.2. USB Input ..................................................................................... 4
   2.3. IP Connection ............................................................................... 4
   2.4. Status LED .................................................................................... 4

3. IP configuration .................................................................................... 5
   3.1. Default configuration ................................................................. 5
   3.2. Settings ......................................................................................... 5
       3.2.1. Static IP configuration .......................................................... 5
       3.2.2. DHCP ...................................................................................... 5
   3.3. Get current IP address (prototype) ............................................. 6
   3.4. Reset IP configuration to default ............................................... 7

4. Shadow Database ................................................................................ 8
   4.1. Updating the Shadow Database ................................................ 8

5. Firmware updates ................................................................................. 9

6. Characteristics ...................................................................................... 10
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 Controller 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.

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.

7. The current IP configuration is available under “eth0” information.
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.

<table>
<thead>
<tr>
<th>Nom</th>
<th>Modifié le</th>
<th>Type</th>
<th>Taille</th>
</tr>
</thead>
<tbody>
<tr>
<td>recoveripconfig</td>
<td>21/05/2015 08:02</td>
<td>Fichier</td>
<td>0 Ko</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>KNX ref. 1860252</th>
<th>LON ref. 1860253</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>100 – 230 V AC / 50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Max. operating current</td>
<td>&lt; 40 mA@230 V AC</td>
<td>80 mA@120 V AC</td>
</tr>
<tr>
<td>Stand-by current</td>
<td>&lt; 4 W@230 V AC</td>
<td>&lt; 4 W@120 V AC</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0° C to 45° C</td>
<td></td>
</tr>
<tr>
<td>Relative humidity</td>
<td>85 %</td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>PC-ABS polycarbonate</td>
<td></td>
</tr>
<tr>
<td>Housing dimensions (wxhxd)</td>
<td>100 x 175 x 50 mm</td>
<td></td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 20</td>
<td></td>
</tr>
<tr>
<td>Protection class</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>Conformity</td>
<td><a href="http://www.somfy.com/ce">www.somfy.com/ce</a></td>
<td></td>
</tr>
</tbody>
</table>

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)