User Manual

Revision 1.101
English

DALI / Modbus Slave - Converter

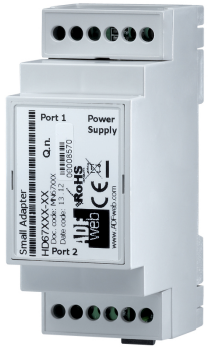
(Order Code: HD67843-B2-Y, HD67843-B2-N)

For Website information:
www.adfweb.com?Product=HD67843

For Price information:
www.adfweb.com?Price=HD67843-B2

Benefits and Main Features:

- Very easy to configure
- Electrical isolation
- Temperature range: -40°C/+85°C (-40°F/+185°F)



For others DALI products, see also the following links:

Converter DALI to

www.adfweb.com?Product=HD67822	**(KNX)**
www.adfweb.com?Product=HD67831	**(RS485)**
www.adfweb.com?Product=HD67832	**(BACnet/IP Master)**
www.adfweb.com?Product=HD67833	**(BACnet/IP Slave)**
www.adfweb.com?Product=HD67834	**(CAN)**
www.adfweb.com?Product=HD67835	**(CANopen)**
www.adfweb.com?Product=HD67836	**(DeviceNet Master)**
www.adfweb.com?Product=HD67837	**(DeviceNet Slave)**
www.adfweb.com?Product=HD67838	**(DMX)**
www.adfweb.com?Product=HD67839	**(Ethernet)**
www.adfweb.com?Product=HD67840	**(EtherNet/IP)**
www.adfweb.com?Product=HD67842	**(Modbus Master)**
www.adfweb.com?Product=HD67844	**(Modbus TCP Master)**
www.adfweb.com?Product=HD67845	**(Modbus TCP Slave)**
www.adfweb.com?Product=HD67848	**(PROFINET)**
www.adfweb.com?Product=HD67849	**(SNMP Manager)**
www.adfweb.com?Product=HD67850	**(SNMP Agent)**

Do you have an your customer protocol?
www.adfweb.com?Product=HD67003

Do you need to choose a device? do you want help?
www.adfweb.com?Cmd=helpme

User Manual

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UPDATED DOCUMENTATION:

Dear customer, we thank you for your attention and we remind you that you need to check that the following document is:

- Updated
- Related to the product you own

To obtain the most recently updated document, note the "document code" that appears at the top right-hand corner of each page of this document.

With this "Document Code" go to web page www.adfweb.com/download/ and search for the corresponding code on the page. Click on the proper "Document Code" and download the updates.

REVISION LIST:

Revision	Date	Author	Chapter	Description
1.000	05/04/2017	Ff	All	First Release
1.100	14/02/2020	Ff	All	Added DALI 2 tables
1.101	04/06/2026	Ln	All	Added Modbus commands for DALI (also DT8 version)

WARNING:

ADFweb.com reserves the right to change information in this manual about our product without warning.
ADFweb.com is not responsible for any error this manual may contain.

TRADEMARKS:

All trademarks mentioned in this document belong to their respective owners.

SECURITY ALERT:

GENERAL INFORMATION

To ensure safe operation, the device must be operated according to the instructions in the manual. When using the device, legal and safety regulation are required for each individual application. The same applies also when using accessories.

INTENDED USE

Machines and systems must be designed so the faulty conditions do not lead to a dangerous situation for the operator (i.e. independent limit switches, mechanical interlocks, etc.).

QUALIFIED PERSONNEL

The device can be used only by qualified personnel, strictly in accordance with the specifications.
Qualified personnel are persons who are familiar with the installation, assembly, commissioning and operation of this equipment and who have appropriate qualifications for their job.

RESIDUAL RISKS

The device is state-of-the-art and is safe. The instruments can represent a potential hazard if they are inappropriately installed and operated by untrained personnel. These instructions refer to residual risks with the following symbol:

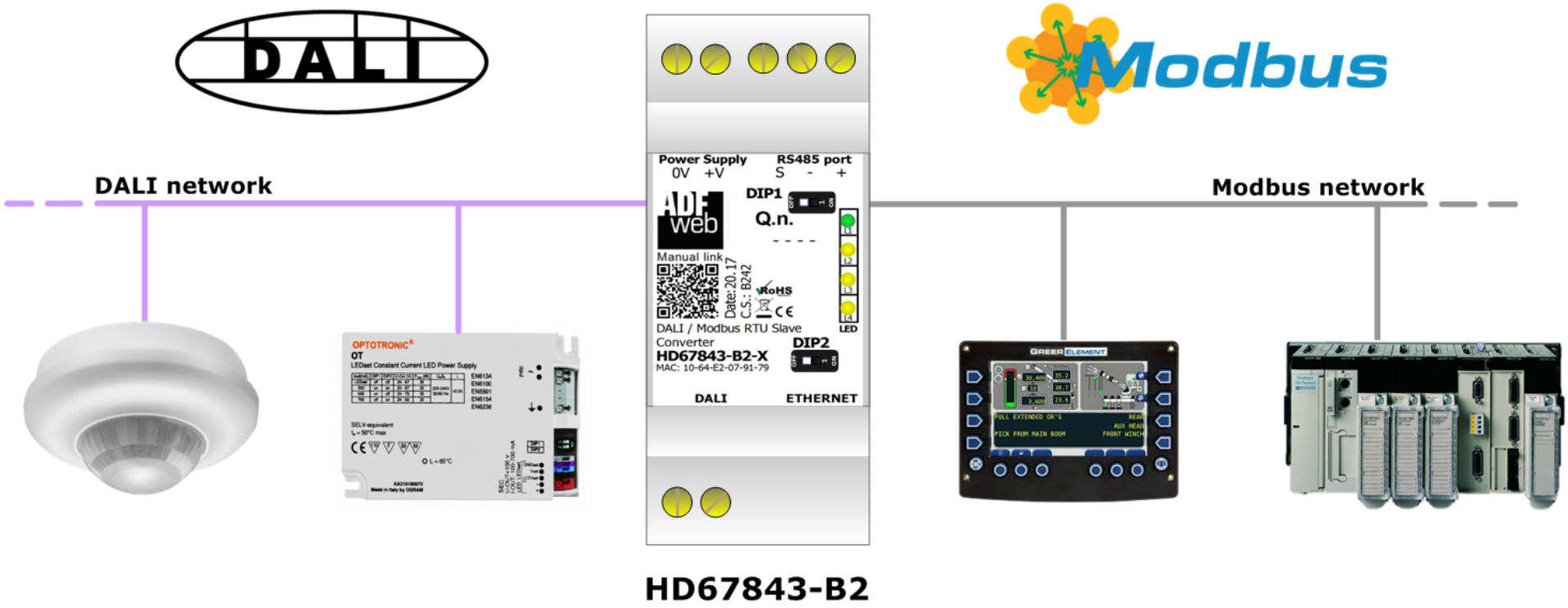


This symbol indicates that non-observance of the safety instructions is a danger for people that could lead to serious injury or death and / or the possibility of damage.

CE CONFORMITY

The declaration is made by our company. You can send an email to support@adfweb.com or give us a call if you need it.

EXAMPLE OF CONNECTION:



CONNECTION SCHEME:

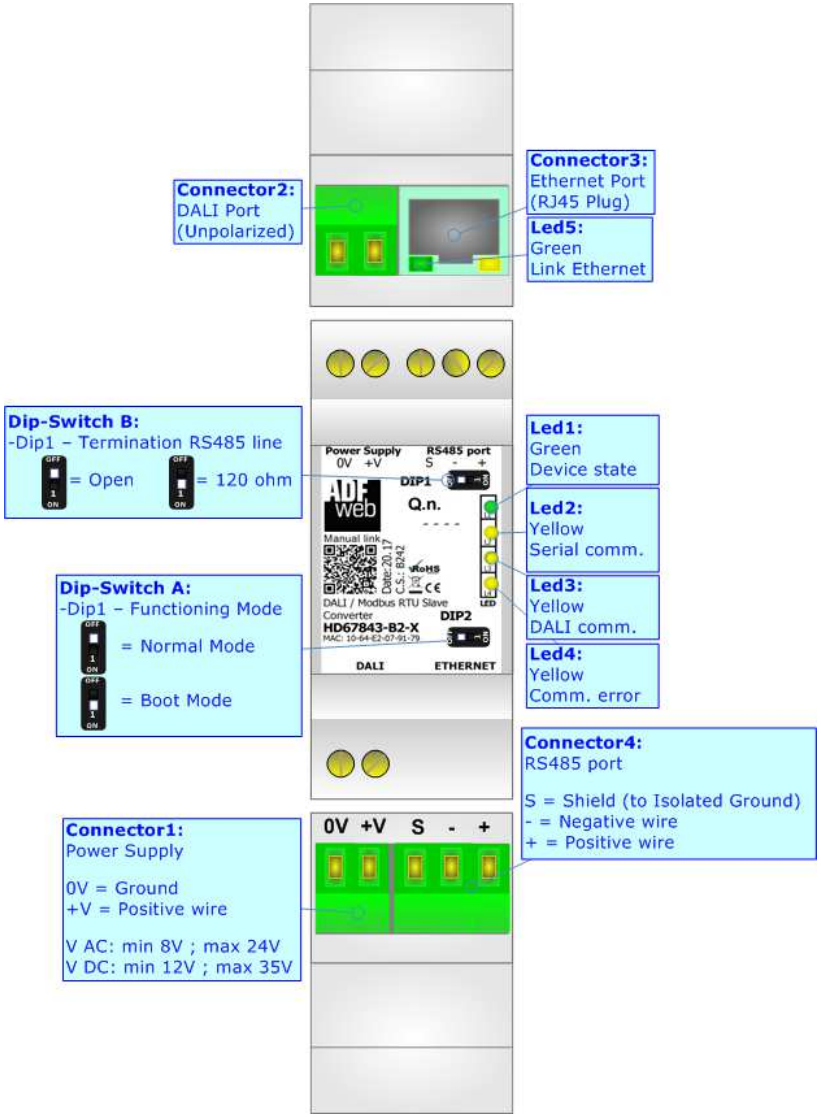


Figure 1: Connection scheme for HD67843-B2

CHARACTERISTICS:

The HD67843 is a DALI / Modbus Slave - Converter.

It has the following characteristics:

- Up to 64 devices on DALI bus;
- Configurator for DALI network/devices;
- Isolation between DALI – RS485, Power Supply – RS485. Additional isolation Power Supply – DALI for HD67843-B2-N version;
- Two-directional information between DALI bus and Modbus bus;
- Mountable on 35mm Rail DIN;
- Wide power supply input range: 8…24V AC or 12…35V DC;
- Wide temperature range: -40°C / +85°C [-40°F / +185°F].

CONFIGURATION:

You need "DALI Console" software on your PC in order to perform the following:

- Configure the DALI network;
- Setup the DALI devices (groups, scenes, IDs, …);
- Test DALI communication.

You need Compositor SW67843 software on your PC in order to perform the following:

- Define the parameter of Modbus line;
- Define the parameter of DALI line;
- Update the device.

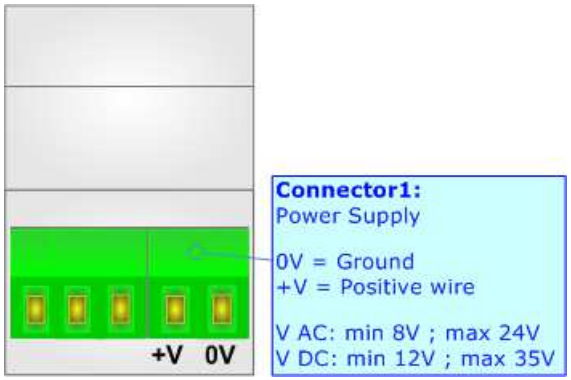
POWER SUPPLY:

The devices can be powered at 8…24V AC and 12…35V DC. For more details see the two tables below.

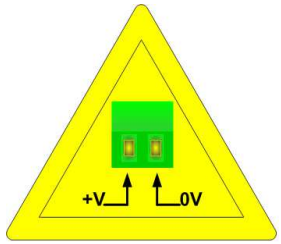
VAC ~		VDC ⎓	
Vmin	**Vmax**	**Vmin**	**Vmax**
8V	**24V**	**12V**	**35V**

Consumption at 24V DC:

Device	Consumption [W/VA]
HD67843-B2	3.5



Caution: Not reverse the polarity power



HD67843-B2

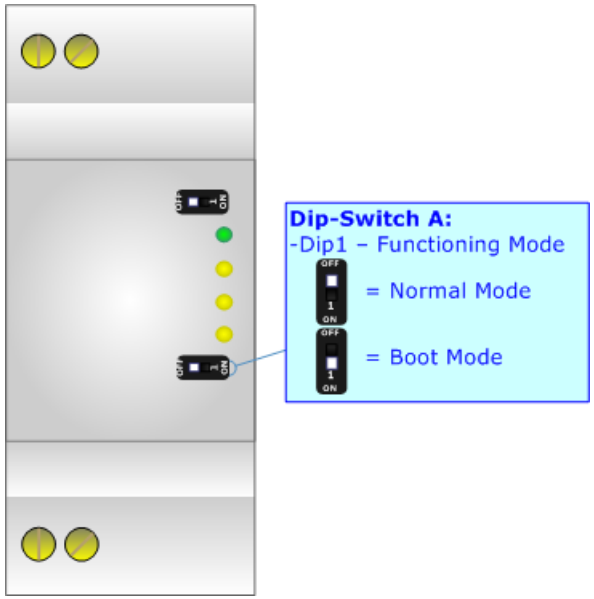
FUNCTION MODES:

The device has got two functions mode depending of the position of the 'Dip1 of Dip-Switch A':

- The first, with 'Dip1 of Dip-Switch A' at "OFF" position, is used for the normal working of the device.
- The second, with 'Dip1 of Dip-Switch A' at "ON" position, is used for upload the Project and/or Firmware.

For the operations to follow for the updating, see 'UPDATE DEVICE' section.

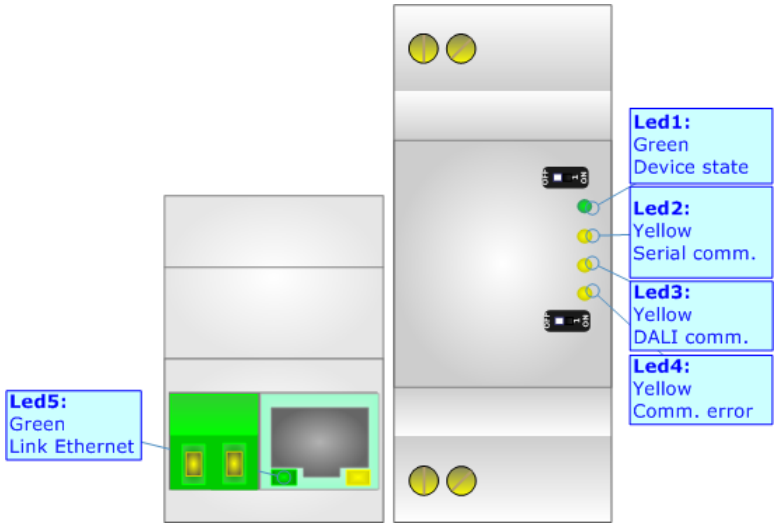
According to the functioning mode, the LEDs will have specifics functions, see 'LEDS' section.



LEDS:

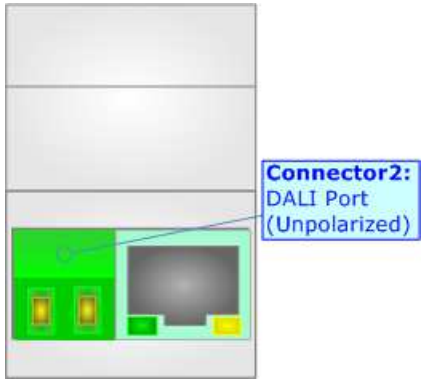
The device has got five LEDs that are used to give information of the functioning status.
The various meanings of the LEDs are described in the table below.

LED	Normal Mode	Boot Mode
1: Device State (green)	Blinks slowly (~1Hz)	**Blinks quickly:** Boot state **Blinks very slowly (~0.5Hz):** update in progress
2: Serial comm. (yellow)	Blinks when Modbus communication is running	**Blinks quickly:** Boot state **Blinks very slowly (~0.5Hz):** update in progress
3: DALI comm. (yellow)	Blinks when DALI communication is running	**Blinks quickly:** Boot state **Blinks very slowly (~0.5Hz):** update in progress
4: Comm. error (yellow)	Turns ON when DALI or Modbus is in error	**Blinks quickly:** Boot state **Blinks very slowly (~0.5Hz):** update in progress
5: Ethernet Link (green)	**ON:** Ethernet cable connected **OFF:** Ethernet cable disconnected	**ON:** Ethernet cable connected **OFF:** Ethernet cable disconnected



DALI:

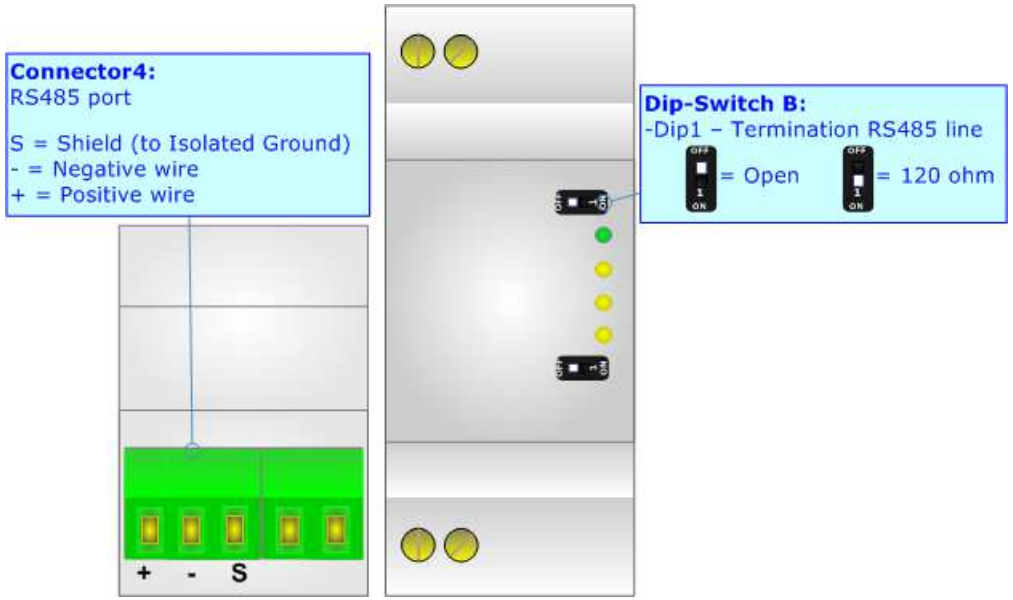
DALI stands for "Digital Addressable Lighting Interface" and it is an interface protocol for digital communication between electronic lighting equipment (electronic ballasts, transformers, etc.).
With the right choice of individual DALI components an extremely wide range of requirements can be met, from operating the lighting system from a simple light switch to lighting management systems for entire office complexes with thousands of light sources. Using ADFweb.com's DALI converters, any light source, including incandescent lamps, fluorescent lamps, high-intensity discharge lamps and even LEDs, can be controlled irrespective of whether they are installed in an office, a restaurant or a street light.



Characteristics	Description
Medium	Shielded Twisted Pair
Topology	Linear, Star or mixed
Device power consumption	Max 250 mA
DALI voltage	9.5 V – 22.5 V (typical 16 V)
Maximum cable length	300 m (1.5 mm2 wire)
Maximum number of DALI devices	64
Baud rate	1200 bps
Maximum number of DALI groups	16
Maximum number of DALI scenes	16

RS485:

For terminate the RS485 line with a 120Ω resistor it is necessary to put ON dip 1, like in figure.



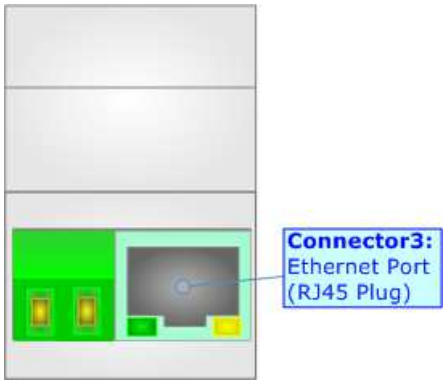
The maximum length of the cable should be 1200m (4000 feet).

Here some codes of cables:

- Belden: p/n 8132 - 2x 28AWG stranded twisted pairs conductor + foil shield + braid shield;
- Belden p/n 82842 - 2x 24AWG stranded twisted pairs conductor + foil shield + braid shield;
- Tasker: p/n C521 - 1x 24AWG twisted pair conductor + foil shield + braid shield;
- Tasker: p/n C522 - 2x 24AWG twisted pairs conductor + foil shield + braid shield.

ETHERNET:

The Ethernet port is used for programming DALI network and for programming the device.
The Ethernet connection must be made using Connector2 of HD67843-B2 with at least a Category 5E cable. The maximum length of the cable should not exceed 100m. The cable has to conform to the T568 norms relative to connections in cat.5 up to 100 Mbps. To connect the device to an Hub/Switch is recommended the use of a straight cable, to connect the device to a PC is recommended the use of a cross cable.



USE OF COMPOSITOR SW67843:

To configure the Converter, use the available software that runs with Windows called SW67843. It is downloadable on the site www.adfweb.com and its operation is described in this document. *(This manual is referenced to the last version of the software present on our web site)*. The software works with MSWindows (XP, Vista, Seven, 8, 10 or 11; 32/64bit).

When launching the SW67843, the window below appears (Fig. 2).

Note:
It is necessary to have installed .Net Framework 4.

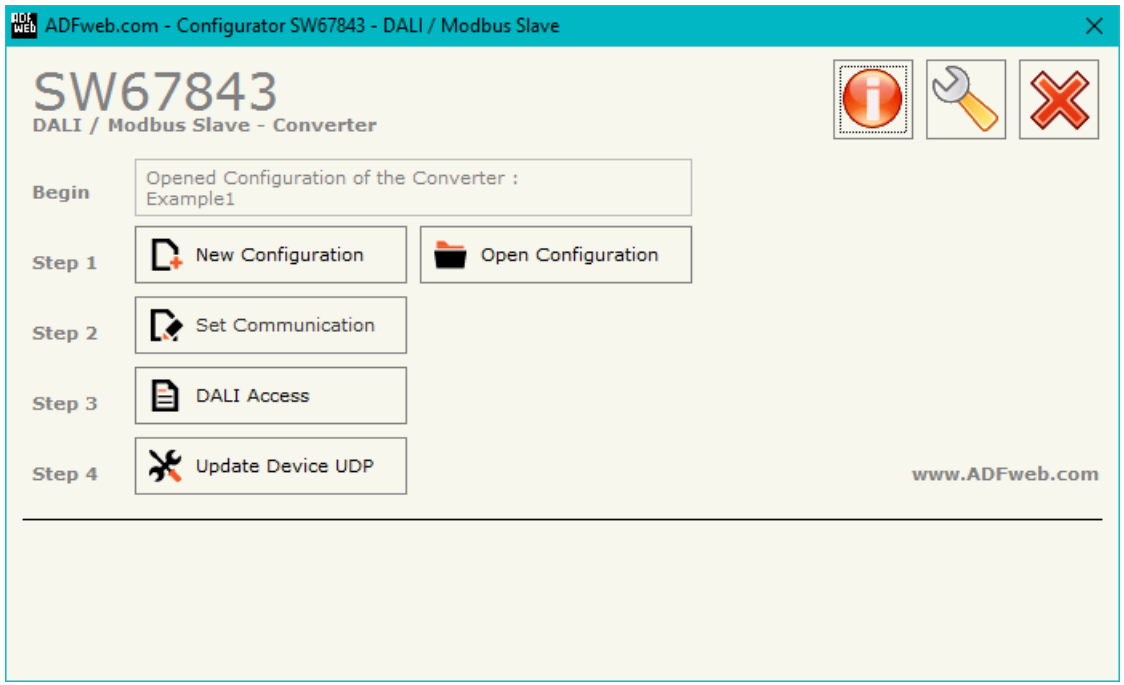
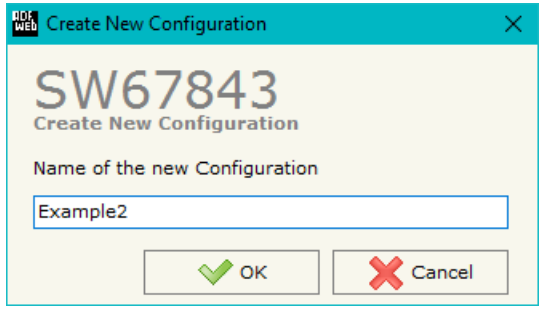


Figure 2: Main window for SW67843

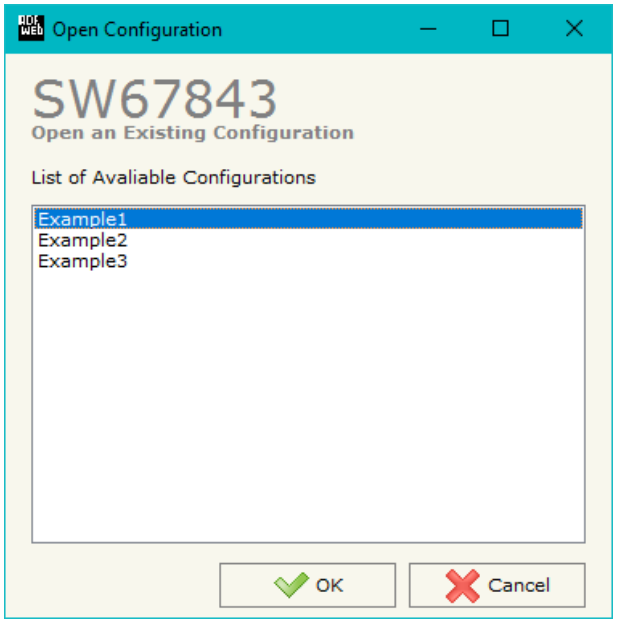
NEW CONFIGURATION / OPEN CONFIGURATION:

The "**New Configuration**" button creates the folder which contains the entire device's configuration.



A device's configuration can also be imported or exported:

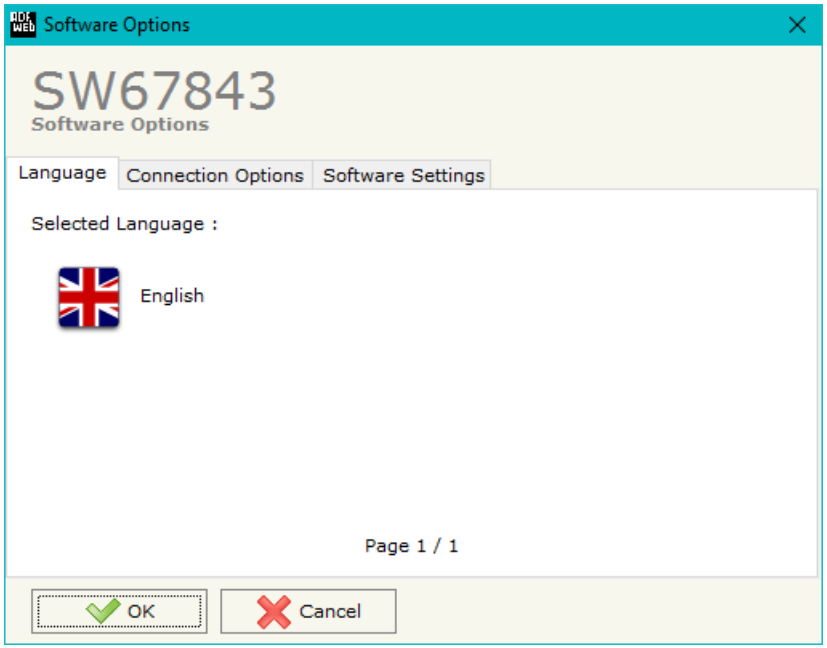
- To clone the configurations of a Programmable "DALI / Modbus Slave - Converter" in order to configure another device in the same manner, it is necessary to maintain the folder and all its contents;
- To clone a project in order to obtain a different version of the project, it is sufficient to duplicate the project folder with another name and open the new folder with the button "**Open Configuration**".

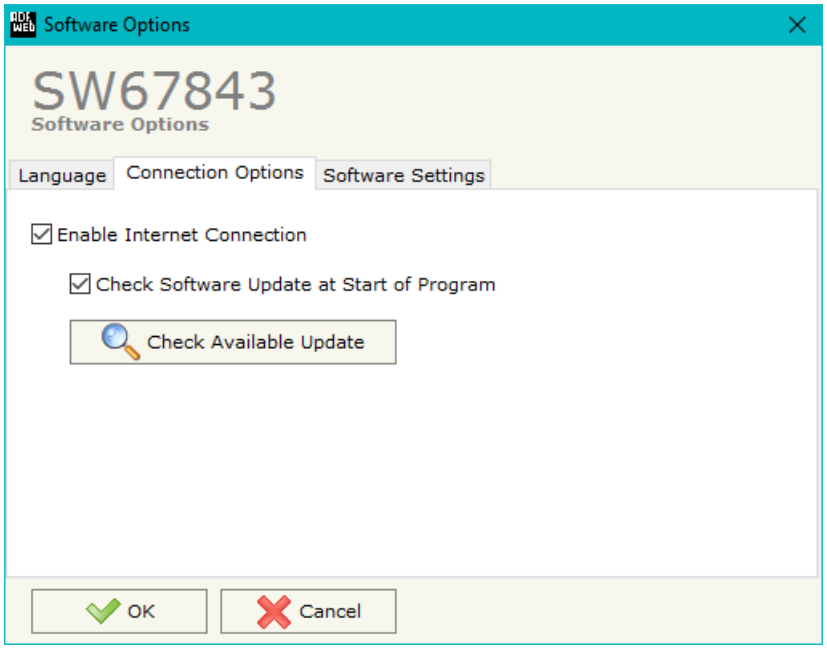


SOFTWARE OPTIONS:

By pressing the "**Settings**" ( ) button there is the possibility to change the language of the software and check the updatings for the compositor.

In the section "Language" it is possible to change the language of the software.





In the section "Connection Options", it is possible to check if there are some updatings of the software compositor in ADFweb.com website.
Checking the option "**Check Software Update at Start of Program**", the SW67843 check automatically if there are updatings when it is launched.



In the section "Software Settings", it is possible to enable/disable some keyboard's commands for an easier navigation inside the tables contained in the different sections of the software.

SET COMMUNICATION:

This section define the fundamental communication parameters of Modbus and DALI bus.

By Pressing the "**Set Communication**" button from the main window for SW67843 (Fig. 2) the window "Set Communication" appears (Fig. 3).

The means of the fields for the "Modbus Slave" section are:

- In the field "**Baudrate**" the baudrate for the serial line is defined;
- In the field "**Parity**" the parity of the serial line is defined;
- In the field "**ID Device**" the ID of the Modbus side is defined;
- If the field "**Map each DALI Device in a Register**" is checked, the Modbus map (see page 34) is doubled and a single information for each Modbus register is mapped.

The means of the fields for the "DALI" section are:

- In the field "**DALI Console Port**" the UDP port used for the communication with 'DALI Console' software is defined;
- If the field "**Switch off DALI on Timeout**" is checked, the DALI line is switched OFF if there is no communication with the Modbus Master for the "**TimeOut (ms)**" defined below;
- If the field "**Disable DALI Scan**" is checked, the automatic scan of DALI network is disabled;
- If the field "**Enable DALI 2**" is checked, DALI 2 protocol is enabled.

The means of the fields for the "Ethernet" section are:

- In the field "**IP ADDRESS**" the IP address of the converter is defined;
- In the field "**SUBNET Mask**" the SubNet Mask is defined;
- In the field "**GATEWAY**" the default gateway of the Ethernet network is defined. This feature can be enabled or disabled pressing the Check Box field. This feature is used for going out of the net;

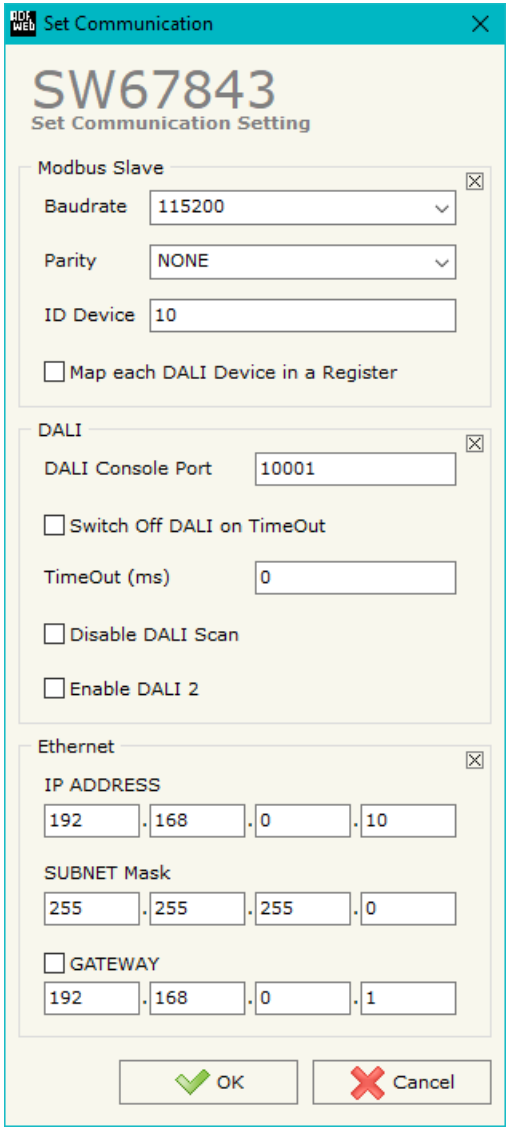


Figure 3: "Set Communication" window

DALI ACCESS:

By pressing the "**DALI Access**" button from the main window for SW67843 (Fig. 2) the window "Select the DALI Device Present in the Network" appears (Fig. 4).
This section is composed by three tables used to define the list of DALI devices to control, the DALI sensors to read and the DALI router's functions.

SELECT DEVICE

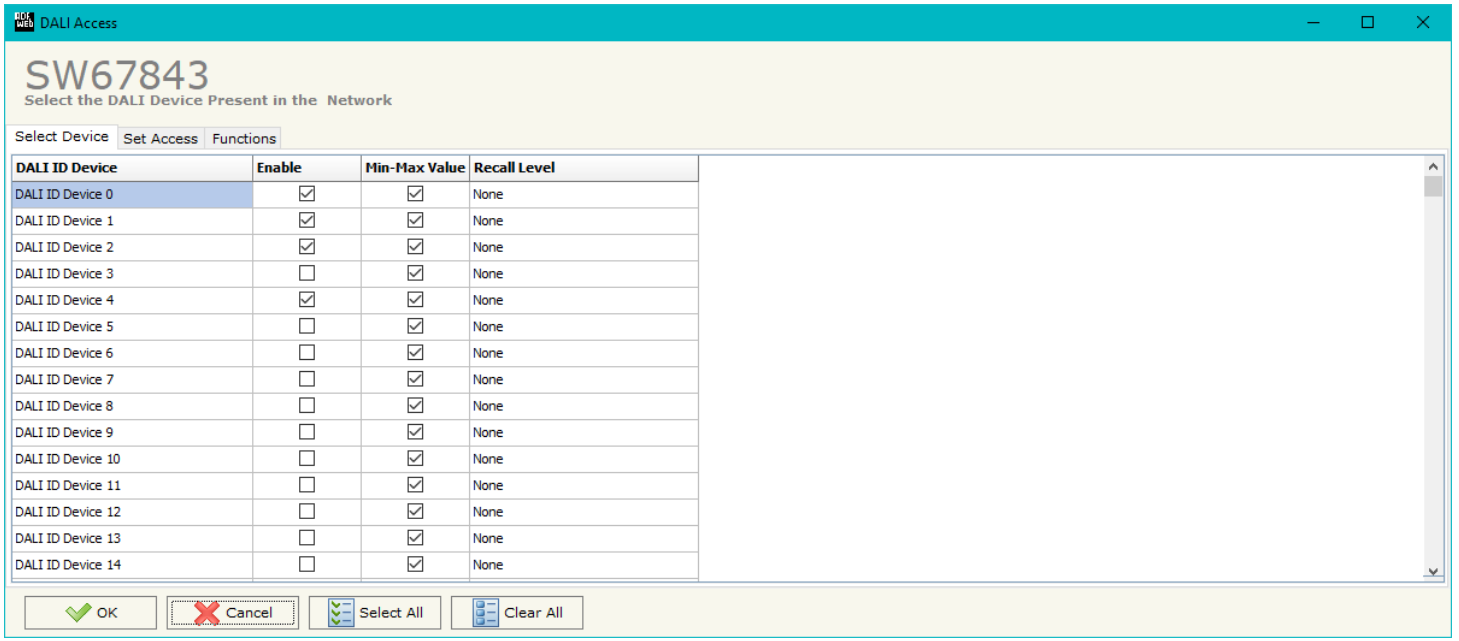


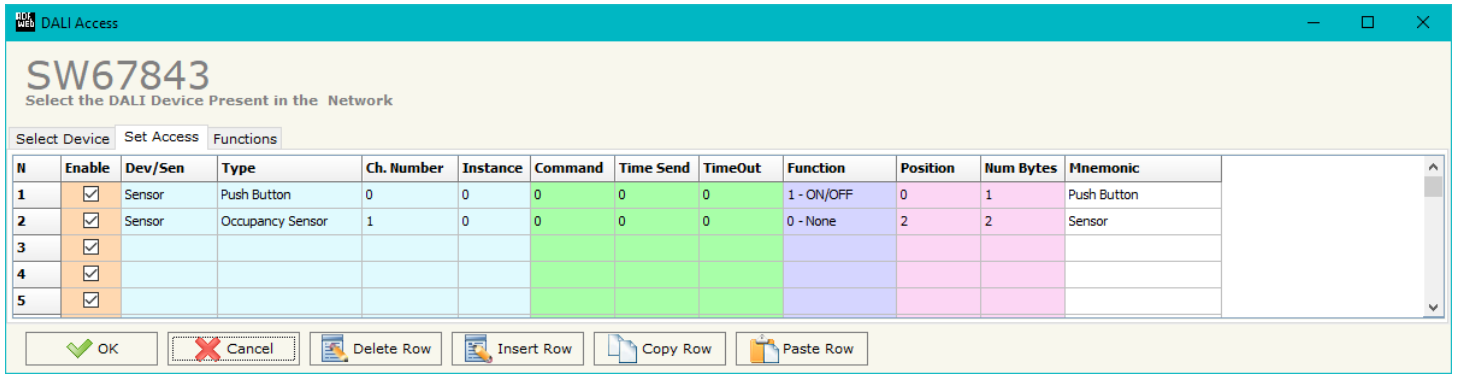
Figure 4a: "Select Device" window

The "**Select Device**" section (Fig. 4a) is used to list the DALI ballast to read/write. The means of the fields are:

- If the field "**Enable**" is checked, the DALI ballast is present in the network and connected to the converter;
- If the field "Min-Max Value" is checked, the DALI ballast will be dimmed only between the configured minimum and maximum light levels;

- In the field "Recall Level" the light level to command when the ballast is toggled (ON/OFF) is defined. It is possible to define:
  - None: function not enabled;
  - Recall Min-Max Level for Switch: the DALI device is toggled between configured minimum and maximum light levels;
  - Recall Old Value Level for Switch: the DALI device is toggled between 0 and last light level.

SET ACCESS



N	Enable	Dev/Sen	Type	Ch. Number	Instance	Command	Time Send	TimeOut	Function	Position	Num Bytes	Mnemonic
1	☑	Sensor	Push Button	0	0	0	0	0	1 - ON/OFF	0	1	Push Button
2	☑	Sensor	Occupancy Sensor	1	0	0	0	0	0 - None	2	2	Sensor
3	☑											
4	☑											
5	☑											

Figure 4b: "Set Access" window

The "**Set Access**" section (Fig. 4b) is used to list the DALI sensors to read and the DALI commands to send to the DALI ballasts. The means of the fields are:

- If the field "**Enable**" is checked, the DALI device/sensor is enabled;
- In the field "**Dev/Sen**" the DALI node is defined;
- In the field "**Type**" the type of DALI node to read/write is defined;
- In the field "**Ch. Number**" the ID of the DALI node is defined;
- In the field "**Instance**" the instance of the DALI node is defined;
- In the field "**Command**" the command code to send is defined. If not used, this column can be set to '0';
- In the field "**Time Send**" the delay in ms between the commands is defined. If not used, this column can be set to '0';
- In the field "**Timeout**" the timeout in ms for the reception of the response is defined. If not used, this column can be set to '0';
- In the field "**Function**" the DALI function to recall is define. This feature is used to control DALI ballasts automatically from a DALI 2 device as a DALI router;

- In the field "**Position**" the byte of the internal memory array where mapping the data is defined;
- In the field "**Num Bytes**" the dimension of the data is defined;
- In the field "**Mnemonic**" a description of the row is defined.

Note:
This table is not required if the HD67843-B2 is used to communicate with DALI 1 devices only.

Note:
The 'Position' field represents a byte of the internal memory array of the converter. The array is mapped consecutively from Modbus register 0, so Position 0-1 compose Modbus register 0, Position 2-3 compose Modbus register 1 and so on.
If this table is filled, the fixed Modbus map with the data read from DALI 1 devices is shifted of 2048 registers. See chapter "Modbus map" for the description of the offsets.

FUNCTIONS

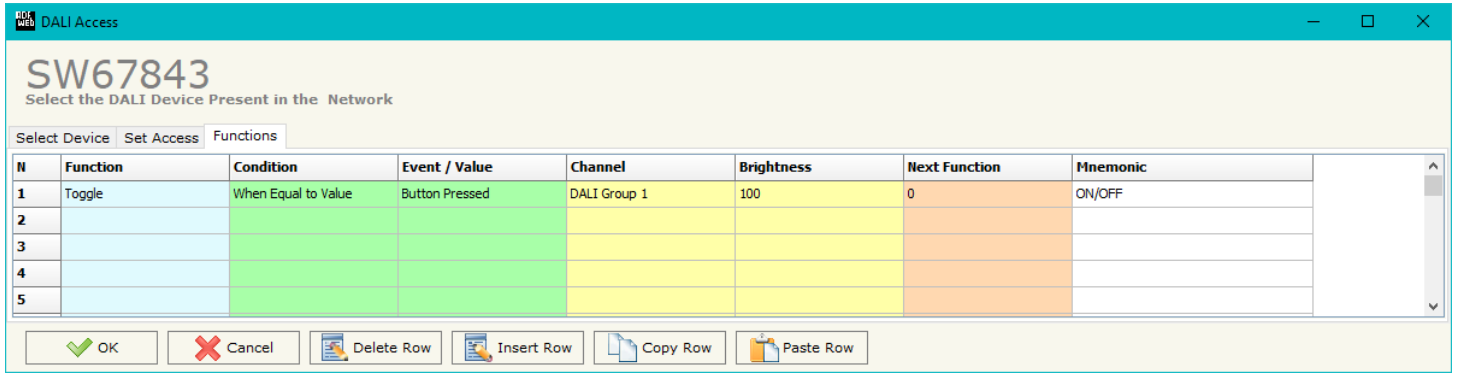


Figure 4c: "Functions" window

The "**Functions**" section (Fig. 4c) is used to list the DALI function to control the DALI ballasts in relation to the data from DALI 2 devices (buttons, sensors, exc.) like a DALI router. The means of the fields are:

- In the field "**Function**" the DALI operation to execute is defined;
- In the field "**Condition**" the logic operation to apply on the data is defined;
- In the field "**Event / Value**" the type of event received from the DALI 2 devices is defined;
- In the field "**Channel**" the DALI ballast/group to control is defined;
- In the field "**Brightness**" the light level to command is defined;
- In the field "**Next Function**" it is possible to concatenate another function;
- In the field "**Mnemonic**" a description of the row is defined.

UPDATE DEVICE:

By pressing the "**Update Device**" button, it is possible to load the created Configuration into the device; and also the Firmware, if necessary.

If you don't know the actual IP address of the device you have to use this procedure:

- Turn OFF the Device;
- Put Dip1 of 'Dip-Switch A' in ON position;
- Turn ON the device
- Connect the Ethernet cable;
- Insert the IP "**192.168.2.205**";
- Select which operations you want to do;
- Press the "**Execute update firmware**" button to start the upload;
- When all the operations are "OK", close the windows;
- Put Dip1 of 'Dip-Switch A' at OFF position.

If you know the actual IP address of the device, you have to use this procedure:

- Turn ON the Device with the Ethernet cable inserted;
- Insert the actual IP of the Converter;
- Select which operations you want to do;
- Press the "**Execute update firmware**" button to start the upload;
- When all the operations are "OK", the device automatically goes at Normal Mode.

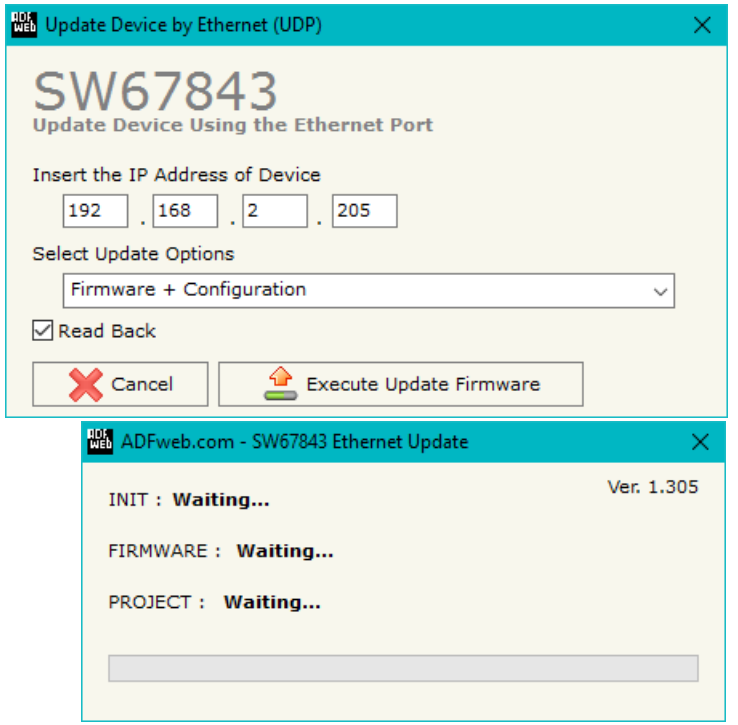


Figure 5: "Update device" windows

At this point the configuration/firmware on the device is correctly update.

Note:
When you install a new version of the software, if it is the first time it is better you do the update of the Firmware in the HD67843 device.

Note:
When you receive the device, for the first time, you also have to update the Firmware in the HD67843 device.

Warning:
If Fig. 6 appears when you try to do the Update try these points before seeking assistance:

- Try to repeat the operations for the updating;
- Try with another PC;
- Try to restart the PC;
- Check the LAN settings;
- Check the Wi-Fi settings;
- If you are using the program inside a Virtual Machine, try to use in the main Operating System;
- If you are using Windows Seven, Vista, 8, 10 or 11 make sure that you have the administrator privileges;
- In case you have to program more than one device, using the "UDP Update", you have to cancel the ARP table every time you connect a new device on Ethernet. For do this you have to launch the "Command Prompt" and write the command "arp -d". Pay attention that with Windows Vista, Seven, 8, 10 or 11 you have to launch the "Command Prompt" with Administrator Rights;
- Pay attention at Firewall lock.

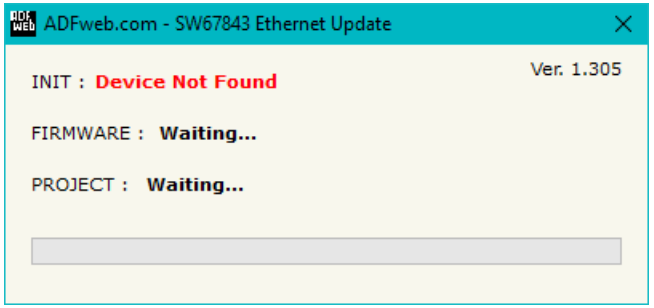


Figure 6: "Protection" window

In the case of HD67843 you have to use the software "SW67843": www.adfweb.com\download\filefold\SW67843.zip.

USE OF DALI CONSOLE SOFTWARE:

To configure DALI network and test the communication, it is possible to use the available software that runs with Windows called "DALI Console". It is downloadable on the site www.adfweb.com and its operation is described in this document. *(This manual is referenced to the last version of the software present on our web site)*. The software works with MSWindows (XP, Vista, Seven, 8, 10 or 11; 32/64bit).

When launching the DALI Console, the window below appears (Fig. 7).

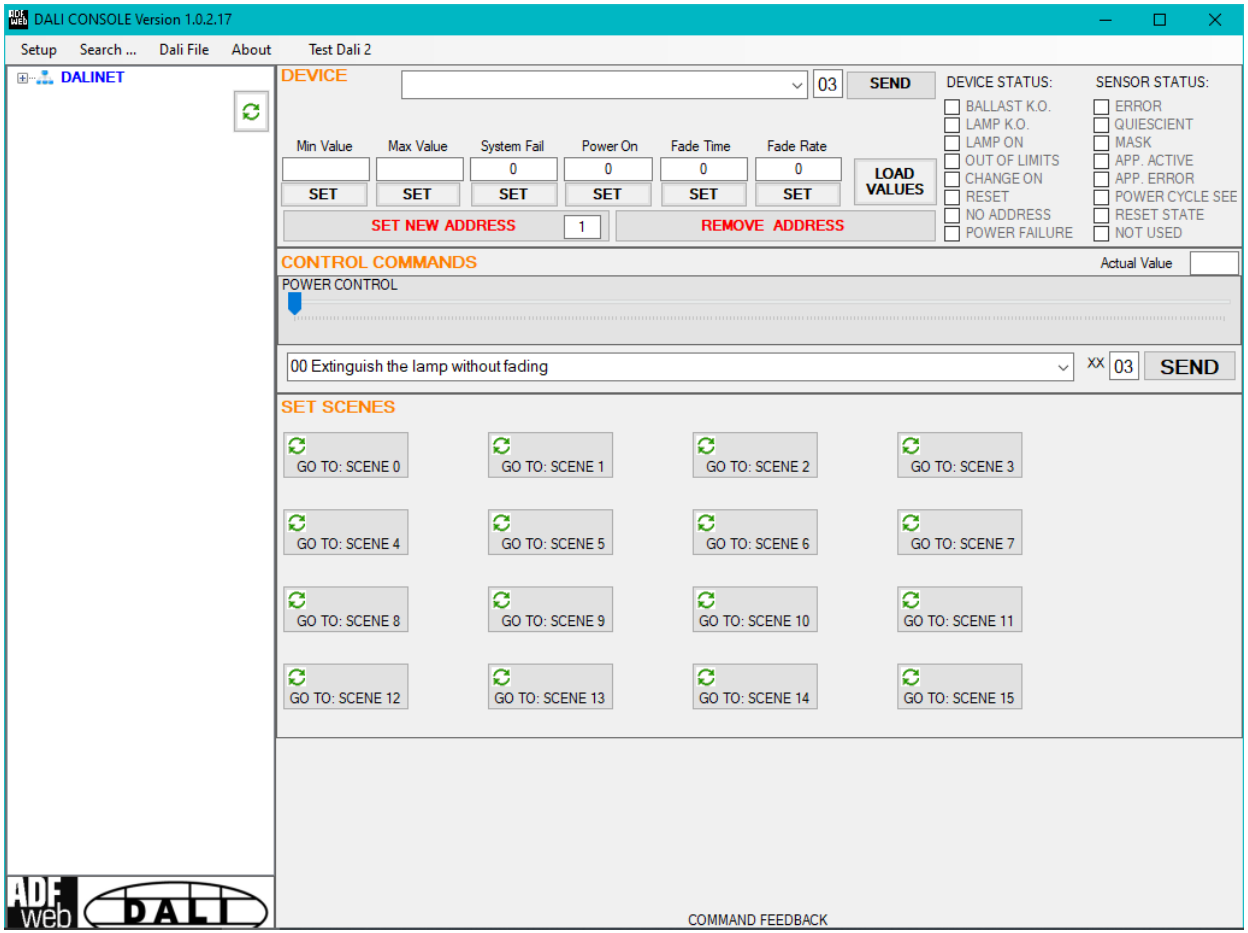


Figure 7: Main window for DALI Console

STRUCTURE OF THE SOFTWARE:

The software layout is very simple and it is structured in this way:

- "**Menu bar**" (Fig. 8, Point 1): it is possible to open the setup window ("Setup" menu), scan the DALI network and program automatically the IDs ("Search..." menu), export/import the results of the communication ("Dali File" menu), see the informations about the DALI Console software ("About" menu) and test DALI 2 communication ("Test Dali 2" menu).
- "**Network view**" (Fig. 8, Point 2): it is possible to see all the DALI devices/sensors connected to the HD67843 converter, the groups and the scenes set;
- "**Settings / commands view**" (Fig. 8, Point 3): it is possible to set and manage the parameters to the single DALI device/sensor, to the groups or for the full network.

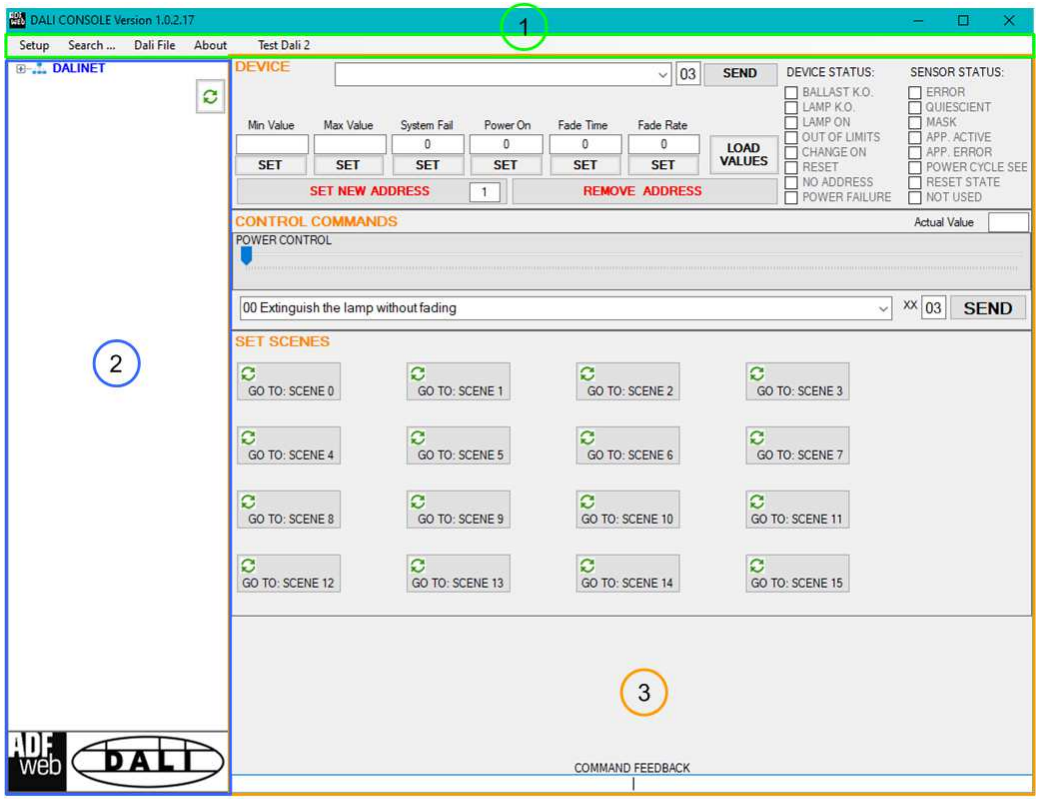


Figure 8: Structure of DALI Console software

SETUP:

This section defines the parameters of the HD67843 converter.
By Pressing the "**Setup**" button from the menu bar of the DALI Console software, the "SETUP" window appears (Fig. 9).

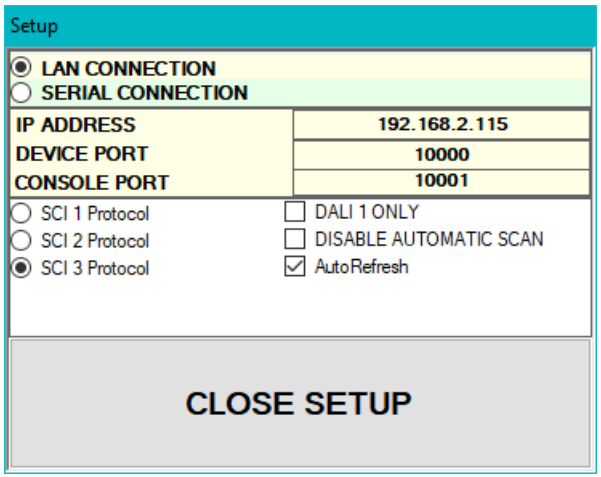


Figure 9: "Setup" window

The means of the fields for the "SETUP" window are:

- In the field "**DEVICE IP ADDRESS**" the IP address set inside the converter is defined;
- In the field "**DEVICE PORT**" the communication port is defined. It is fixed to '10000';
- In the field "**CONSOLE PORT**" the communication port for the DALI commands is defined. It is the one defined in the field "DALI Console Port" of the section "Set Communication" of SW67843;
- In the fields "**SCI x Protocol**" the type of Ethernet communication used is defined. It is possible to leave the default setting;
- If the field "**DALI 1 ONLY**" is checked, the converter will manage just DALI 1 communication;
- If the field "**DISABLE AUTOMATIC SCAN**" is checked, the converter will stop the automatic scan of DALI network;
- If the field "**AutoRefresh**" is checked, the converter automatically refreshes the data when a command is sent.

SEARCH:

This section is used to scan the DALI network, discover the devices and address them consecutively.
The options available under this menu are different:

- Full Device Search: this function will scan and address all the DALI devices;
- Partial Device Search: this function will scan and address only the DALI devices without ID;
- Full Sensor Search: this function will scan and address all the DALI sensors;
- Partial Sensor Search: this function will scan and address only the DALI sensors without ID;
- Scan Devices and Sensors: this function will read the data from all available DALI devices/sensors;
- Disable Polling: this function will stop the DALI readings;
- Enable Polling: this function will start the DALI readings.

TEST DALI 2:

This section is used to monitor the DALI 2 messages received by the converter.
It allows to see the sensor that is communicating, the instance and the information available in the event.

NETWORK SETTING:

By pressing the button in the Network view, it is possible to read the converter and check the DALI devices/sensors discovered, the groups set and the scenes configured.

By selecting the single DALI devices found, the single groups, the single scene or the entire DALI network, it is possible to manage and test the functioning of the network.

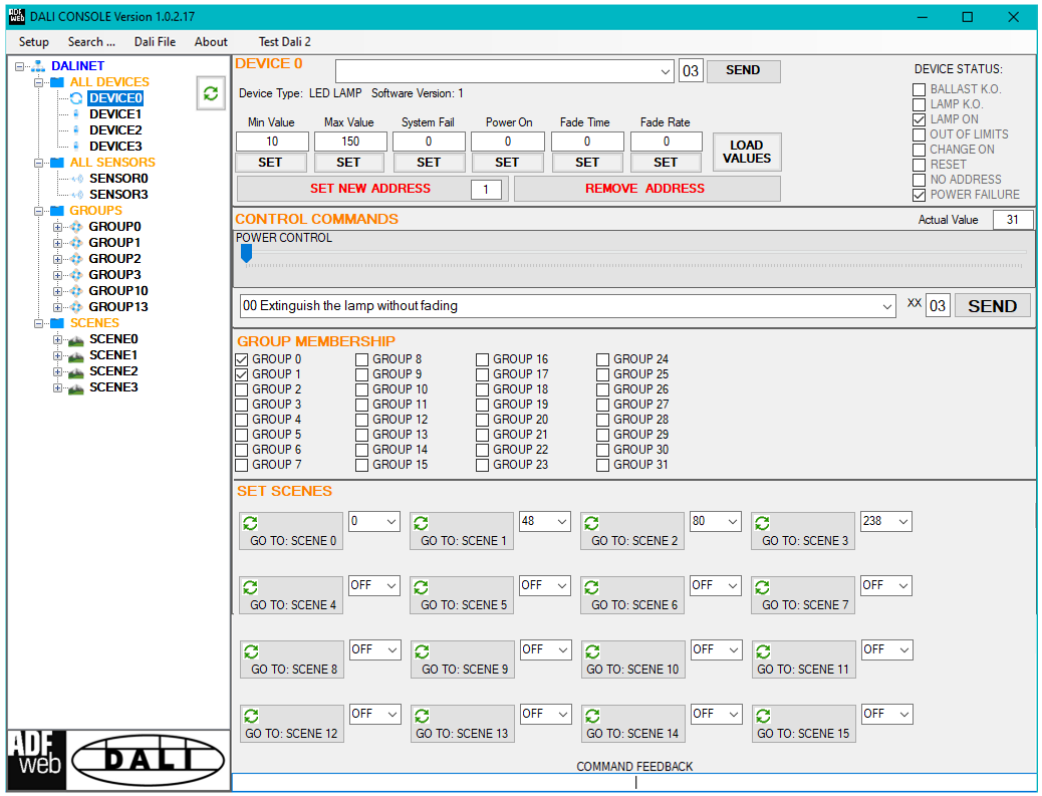


Figure 10: "Device settings" window

DEVICES:

The means of the fields for "DEVICE INFO" are:

- In the field "**Device Type**" the type of DALI device is printed;
- In the field "**Software version**" the software version of the DALI device is printed;
- In the fields "**Power Range**" Min value, Actual value, Max value, System Fail value, Power On value, Fade Time and Fade Rate of the DALI device is defined. It is possible to read the actual value and set a new value;
- In the fields "**DEVICE STATUS**" the actual status of the DALI device is printed;
- In the field "**SET NEW ADDRESS**" it is possible to program a new ID to the DALI node;
- In the field "**REMOVE ADDRESS**" it is possible to delete the ID from the DALI node.

The means of the fields for the "CONTROL COMMANDS" section are:

- In the "**POWER CONTROL**" bar it is possible to change the actual ADV of the selected DALI device;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the selected DALI device. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND COMMAND**" button;
- In the field "**COMMAND FEEDBACK**" the response from the DALI device is printed.

Note:
This section is used to test the functioning of the DALI device in the network and to set specific parameters if ned (like new Minimum or Maximum ADV value).

In the "GROUP MEMBERSHIP" section it is possible to see the Groups which the selected DALI device is in. The checked checkboxes mean that the device is in the correspondent groups, the unchecked checkboxes mean that the device is not included in the correspondent groups. It is possible to change the group settings for the selected DALI device by checking/unchecking the correspondent checkboxes.

In the "SET SCENES" section it is possible to see the programmed scenes of the selected DALI device, program new ones and activate them:

- By pressing the buttons "**GO TO: SCENE X**" it is possible to activate the correspondent scene inside the selected DALI device; the programmed ADV for the selected scene is defined in the drop-down list on the right;
- By selecting a value into the drop-down lists next to the "GO TO: SCENE x" buttons, it is possible to set the ADV associated to the correspondent scene. It is possible to select:
  - Value between 0 and 255: the scene will have the defined value of ADV;
  - ACT: the scene will take the programmed ADV value into the "POWER CONTROL" bar;
  - OFF: the scene is disabled.

SENSORS:

The means of the fields for "SENSOR INFO" are:

- In the field "**Software version**" the software version of the DALI sensor is printed;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the selected DALI sensor. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND**" button;
- In the fields "**SENSOR STATUS**" the actual status of the DALI sensor is printed;
- In the field "**SET NEW ADDRESS**" it is possible to program a new ID to the DALI sensor;
- In the field "**REMOVE ADDRESS**" it is possible to delete the ID from the DALI sensor.

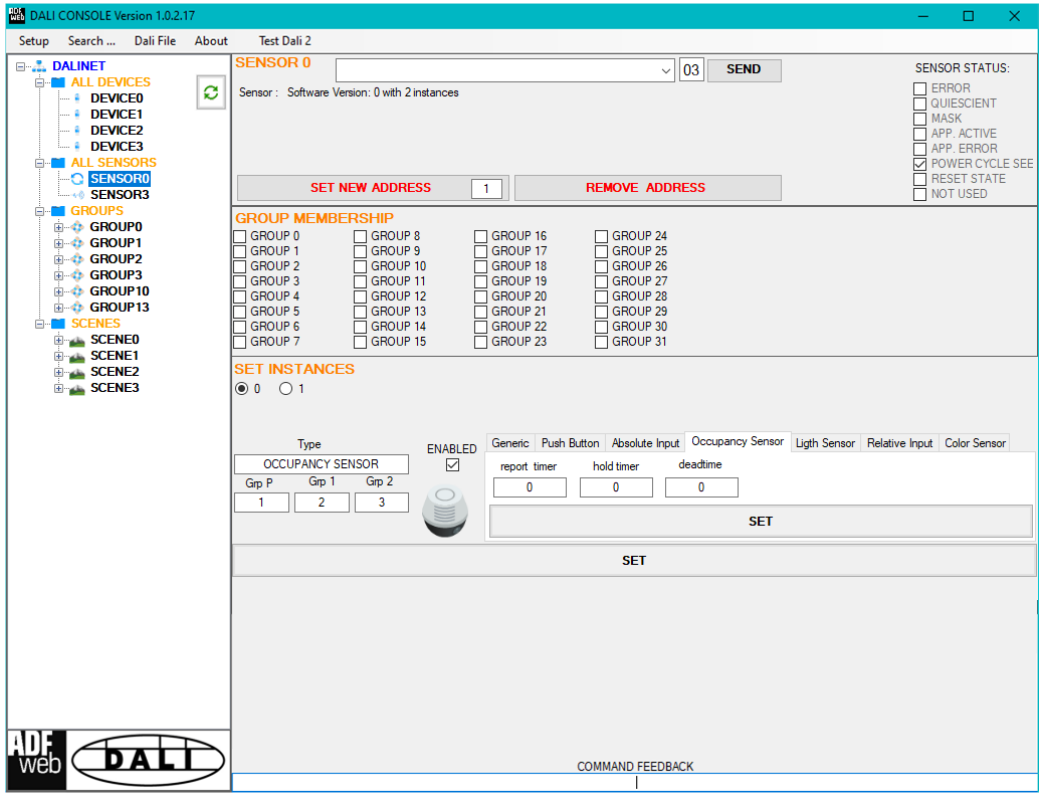


Figure 11: "Sensors settings" window

In the "GROUP MEMBERSHIP" section it is possible to see the Groups which the selected DALI sensor is in. The checked checkboxes mean that the device is in the correspondent groups, the unchecked checkboxes mean that the device is not included in the correspondent groups.
It is possible to change the group settings for the selected DALI sensor by checking/unchecking the correspondent checkboxes.

In the "SET INSTANCES" section it is possible to program the parameters for each instance available in the sensor. Each sensor's type has specific parameters defined in DALI 2 specifications.

GROUPS:

The means of the fields for the "CONTROL COMMANDS" section are:

- In the "**POWER CONTROL**" bar it is possible to change the actual ADV of the selected DALI group;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the selected DALI group. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND COMMAND**" button;
- In the field "**COMMAND FEEDBACK**" the response from the DALI group is printed.

Note:
This section is used to test the functioning of the DALI groups in the network.

In the "SET SCENES" section it is possible to activate the programmed scenes to the selected group:

- By pressing the buttons "**GO TO: SCENE X**" it is possible to activate the correspondent scene inside the selected DALI group.

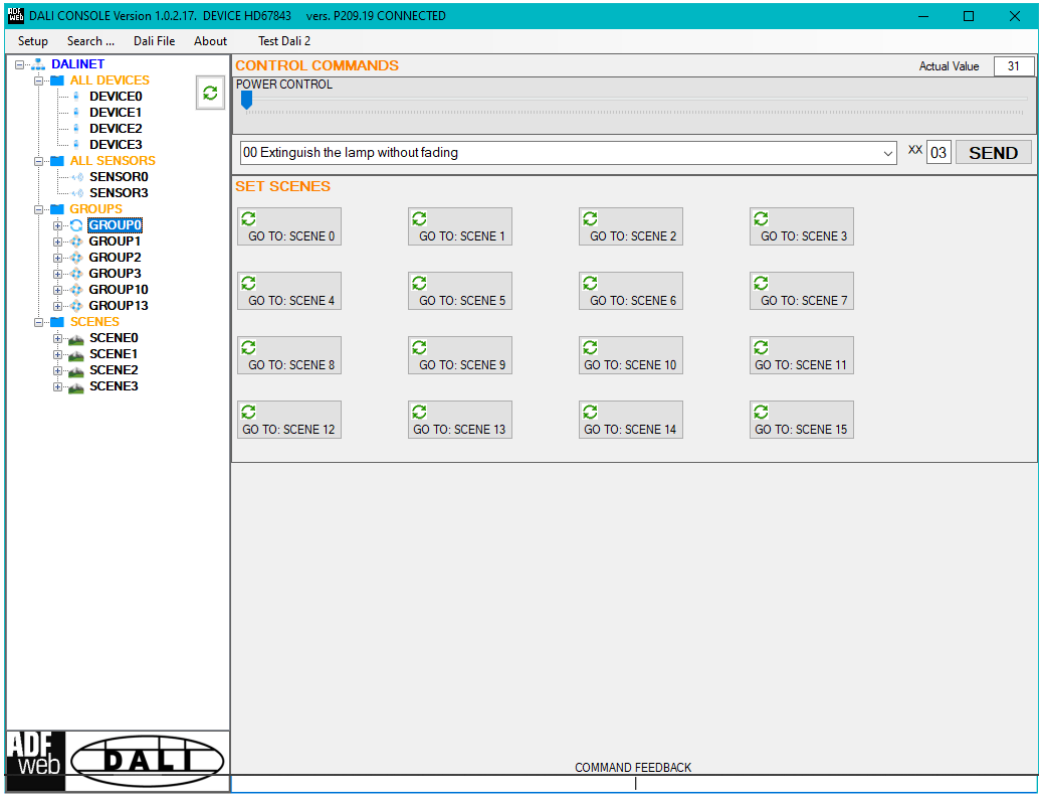


Figure 12: "Groups settings" window

SCENES:

By selecting a DALI scene from the Network view, it is possible to see the devices that have programmed the selected scene.
It is also possible to activate it by pressing the "**ACTIVATE SCENE X**" button.

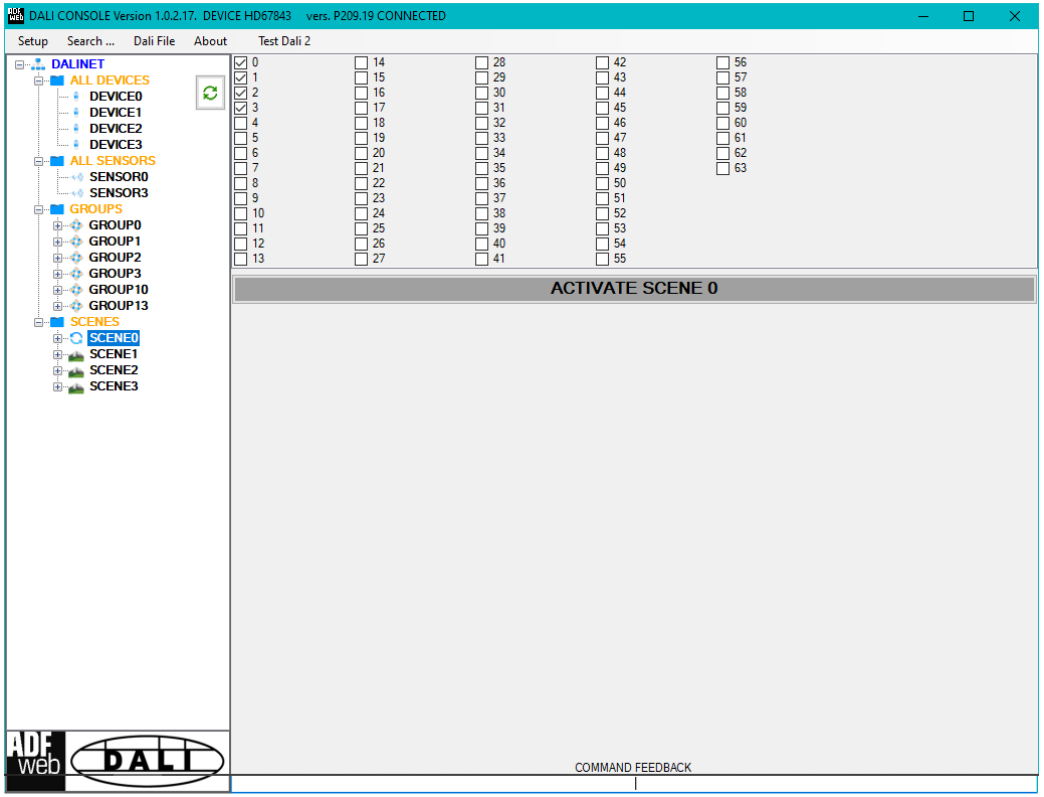


Figure 13: "Scenes settings" window

ALL DEVICES (BROADCAST):

The means of the fields for the "CONTROL COMMANDS" section are:

- In the "**POWER CONTROL**" bar it is possible to change the actual ADV of the entire DALI network;
- In the field "**COMMAND**" it is possible to select a DALI command to send to the entire DALI network. For set commands, it is possible to insert the value to set in the field "**xx**". As soon as the command to send is selected, the command is sent: in order to send the same command more times, it is possible to press the "**SEND COMMAND**" button;
- In the field "**COMMAND FEEDBACK**" the response from the DALI network is printed.

Note:
This section is used to test the functioning of the DALI network.

In the "SET SCENES" section it is possible to activate the programmed scenes into all the DALI devices that have them:

- By pressing the buttons "**GO TO: SCENE X**" it is possible to activate the correspondent scene in the DALI network. Only the devices that have it will accept the command.

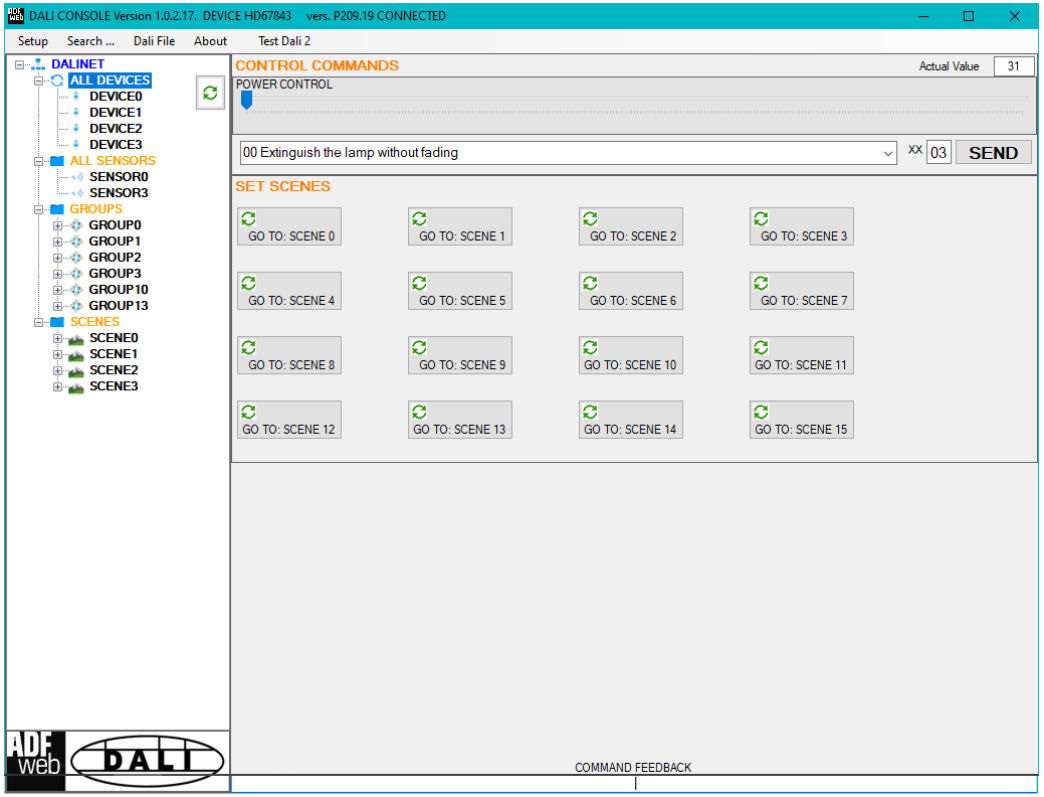


Figure 14: "Broadcast settings" window

MODBUS MAP:

Internally to the converter, there are two different arrays of bytes. The data inside them are different:

- Array in IN: data read from DALI network;
- Array in OUT: data written to DALI network.

These arrays are mapped into some Modbus registers and they are accessible using the standard Modbus functions (03, 04, 06, 16).
In relation of the Modbus function used, the converter can detect if it is a reading request or a writing request and it will link by itself the data into the correct internal array.

The Modbus map in reading is fixed (Modbus function 04 is accepted). Starting from Modbus register 0, the informations read from all the DALI devices are available consecutively. For each DALI device, 4 Modbus registers are reserved.

The Modbus map in writing is fixed (Modbus function 06 and 16 are accepted). Starting from Modbus register 0, it is possible to manage the DALI devices, the groups and the full DALI network. It is possible to read back the commands sent using Modbus function 03.

Structure of the Modbus map (data in reading only)

Modbus Register	Meaning
0-3	Informations about DALI node 0
4-7	Informations about DALI node 1
8-11	Informations about DALI node 2
12-15	Informations about DALI node 3
16-19	Informations about DALI node 4
20-23	Informations about DALI node 5
24-27	Informations about DALI node 6
28-31	Informations about DALI node 7
32-35	Informations about DALI node 8
36-39	Informations about DALI node 9
40-43	Informations about DALI node 10
44-47	Informations about DALI node 11
48-51	Informations about DALI node 12
52-55	Informations about DALI node 13
56-59	Informations about DALI node 14
60-63	Informations about DALI node 15
64-67	Informations about DALI node 16
67-71	Informations about DALI node 17
72-75	Informations about DALI node 18
76-79	Informations about DALI node 19
80-83	Informations about DALI node 20
84-87	Informations about DALI node 21
88-91	Informations about DALI node 22
92-95	Informations about DALI node 23
96-99	Informations about DALI node 24
100-103	Informations about DALI node 25
104-107	Informations about DALI node 26
108-111	Informations about DALI node 27
112-115	Informations about DALI node 28
116-119	Informations about DALI node 29
120-123	Informations about DALI node 30
124-127	Informations about DALI node 31

Modbus Register	Meaning
128-131	Informations about DALI node 32
132-135	Informations about DALI node 33
136-139	Informations about DALI node 34
140-143	Informations about DALI node 35
144-147	Informations about DALI node 36
148-151	Informations about DALI node 37
152-155	Informations about DALI node 38
156-159	Informations about DALI node 39
160-163	Informations about DALI node 40
164-167	Informations about DALI node 41
168-171	Informations about DALI node 42
172-175	Informations about DALI node 43
176-179	Informations about DALI node 44
180-183	Informations about DALI node 45
184-187	Informations about DALI node 46
188-191	Informations about DALI node 47
192-195	Informations about DALI node 48
196-199	Informations about DALI node 49
200-203	Informations about DALI node 50
204-207	Informations about DALI node 51
208-211	Informations about DALI node 52
212-215	Informations about DALI node 53
216-219	Informations about DALI node 54
220-223	Informations about DALI node 55
224-227	Informations about DALI node 56
228-231	Informations about DALI node 57
232-235	Informations about DALI node 58
236-239	Informations about DALI node 59
240-243	Informations about DALI node 60
244-247	Informations about DALI node 61
248-251	Informations about DALI node 62
252-255	Informations about DALI node 63

Modbus map for each DALI node

Offset	Type	Description
0	Input Register	Byte 1 (most significant): **Status** of DALI node Byte 0 (least significant): **ADV** of DALI node
1	Input Register	Byte 1 (most significant): **Response received after command** from DALI node Byte 0 (least significant): - Bit 0, 1, 2, 3 (least significant) = **Type** of DALI node - Bit 4, 5, 6, 7 (most significant) = **Version** of DALI node
2	Input Register	Byte 1 (most significant): **Min. settable value** of DALI node Byte 0 (least significant): **Max. settable value** of DALI node

3	Input Register	Each bit has a different meaning. '0' means 'Group not configured', '1' means 'Group configured'. Byte1 (most significant): - Bit 0 (less significant) = Group 0 - Bit 1 = Group 1 - Bit 2 = Group 2 - Bit 3 = Group 3 - Bit 4 = Group 4 - Bit 5 = Group 5 - Bit 6 = Group 6 - Bit 7 (most significant) = Group 7 Byte0 (least significant): - Bit 0 (least significant) = Group 8 - Bit 1 = Group 9 - Bit 2 = Group 10 - Bit 3 = Group 11 - Bit 4 = Group 12 - Bit 5 = Group 13 - Bit 6 = Group 14 - Bit 7 (most significant) = Group 15

Example:

we want to read the informations about DALI node 9. We know that the data are mapped into Modbus registers 36-37-38-39.
Each information will be contained with the offset defined in the previous table:

Modbus register 36 = Status and ADV
Modbus register 37 = Response and Type&Version
Modbus register 38 = Min. and Max. Value
Modbus register 39 = Groups settings

Structure of the Modbus map (data in read/write)

ADV SETTING FOR SINGLE DALI NODES		
Modbus register	**Type**	**Description**
0	Holding register	Byte 1 (most significant): ADV to set on DALI node 0 Byte 0 (least significant): ADV to set on DALI node 1
1	Holding register	Byte 1 (most significant): ADV to set on DALI node 2 Byte 0 (least significant): ADV to set on DALI node 3
2	Holding register	Byte 1 (most significant): ADV to set on DALI node 4 Byte 0 (least significant): ADV to set on DALI node 5
3	Holding register	Byte 1 (most significant): ADV to set on DALI node 6 Byte 0 (least significant): ADV to set on DALI node 7
4	Holding register	Byte 1 (most significant): ADV to set on DALI node 8 Byte 0 (least significant): ADV to set on DALI node 9
5	Holding register	Byte 1 (most significant): ADV to set on DALI node 10 Byte 0 (least significant): ADV to set on DALI node 11

6	Holding register	Byte 1 (most significant): ADV to set on DALI node 12 Byte 0 (least significant): ADV to set on DALI node 13
7	Holding register	Byte 1 (most significant): ADV to set on DALI node 14 Byte 0 (least significant): ADV to set on DALI node 15
8	Holding register	Byte 1 (most significant): ADV to set on DALI node 16 Byte 0 (least significant): ADV to set on DALI node 17
9	Holding register	Byte 1 (most significant): ADV to set on DALI node 18 Byte 0 (least significant): ADV to set on DALI node 19
10	Holding register	Byte 1 (most significant): ADV to set on DALI node 20 Byte 0 (least significant): ADV to set on DALI node 21
11	Holding register	Byte 1 (most significant): ADV to set on DALI node 22 Byte 0 (least significant): ADV to set on DALI node 23
12	Holding register	Byte 1 (most significant): ADV to set on DALI node 24 Byte 0 (least significant): ADV to set on DALI node 25

13	Holding register	Byte 1 (most significant): ADV to set on DALI node 26 Byte 0 (least significant): ADV to set on DALI node 27
14	Holding register	Byte 1 (most significant): ADV to set on DALI node 28 Byte 0 (least significant): ADV to set on DALI node 29
15	Holding register	Byte 1 (most significant): ADV to set on DALI node 30 Byte 0 (least significant): ADV to set on DALI node 31
16	Holding register	Byte 1 (most significant): ADV to set on DALI node 32 Byte 0 (least significant): ADV to set on DALI node 33
17	Holding register	Byte 1 (most significant): ADV to set on DALI node 34 Byte 0 (least significant): ADV to set on DALI node 35
18	Holding register	Byte 1 (most significant): ADV to set on DALI node 36 Byte 0 (least significant): ADV to set on DALI node 37
19	Holding register	Byte 1 (most significant): ADV to set on DALI node 38 Byte 0 (least significant): ADV to set on DALI node 39

20	Holding register	Byte 1 (most significant): ADV to set on DALI node 40 Byte 0 (least significant): ADV to set on DALI node 41
21	Holding register	Byte 1 (most significant): ADV to set on DALI node 42 Byte 0 (least significant): ADV to set on DALI node 43
22	Holding register	Byte 1 (most significant): ADV to set on DALI node 44 Byte 0 (least significant): ADV to set on DALI node 45
23	Holding register	Byte 1 (most significant): ADV to set on DALI node 46 Byte 0 (least significant): ADV to set on DALI node 47
24	Holding register	Byte 1 (most significant): ADV to set on DALI node 48 Byte 0 (least significant): ADV to set on DALI node 49
25	Holding register	Byte 1 (most significant): ADV to set on DALI node 50 Byte 0 (least significant): ADV to set on DALI node 51
26	Holding register	Byte 1 (most significant): ADV to set on DALI node 52 Byte 0 (least significant): ADV to set on DALI node 53

27	Holding register	Byte 1 (most significant): ADV to set on DALI node 54 Byte 0 (least significant): ADV to set on DALI node 55
28	Holding register	Byte 1 (most significant): ADV to set on DALI node 56 Byte 0 (least significant): ADV to set on DALI node 57
29	Holding register	Byte 1 (most significant): ADV to set on DALI node 58 Byte 0 (least significant): ADV to set on DALI node 59
30	Holding register	Byte 1 (most significant): ADV to set on DALI node 60 Byte 0 (least significant): ADV to set on DALI node 61
31	Holding register	Byte 1 (most significant): ADV to set on DALI node 62 Byte 0 (least significant): ADV to set on DALI node 63

ADV SETTING FOR GROUPS		
Modbus register	**Type**	**Description**
32	Holding register	Byte 1 (most significant): ADV to set on Group 0 Byte 0 (least significant): ADV to set on Group 1
33	Holding register	Byte 1 (most significant): ADV to set on Group 2 Byte 0 (least significant): ADV to set on Group 3
34	Holding register	Byte 1 (most significant): ADV to set on Group 4 Byte 0 (least significant): ADV to set on Group 5
35	Holding register	Byte 1 (most significant): ADV to set on Group 6 Byte 0 (least significant): ADV to set on Group 7
36	Holding register	Byte 1 (most significant): ADV to set on Group 8 Byte 0 (least significant): ADV to set on Group 9
37	Holding register	Byte 1 (most significant): ADV to set on Group 10 Byte 0 (least significant): ADV to set on Group 11

38	Holding register	Byte 1 (most significant): ADV to set on Group 12 Byte 0 (least significant): ADV to set on Group 13
39	Holding register	Byte 1 (most significant): ADV to set on Group 14 Byte 0 (least significant): ADV to set on Group 15

ADV SETTING (BROADCAST)		
Modbus register	**Type**	**Description**
40	Holding register	Byte 1 (most significant): ADV to set

Note:
The range of ADV can be from 0 to 255. The minimum and the maximum value of the ADV for each DALI node depends on the setting of the DALI node. These values can be programmed using "DALI Console" software.

SCENE CONTROL		
Modbus register	**Type**	**Description**
64	Holding register	Byte 1 (most significant): Control byte: it must be increased of +1 every times that the command must be sent on DALI. Byte 0 (least significant): ID of DALI device to command (for commands, most significant bit must be set to '1' as DALI specifications): - 0-63 = Single DALI device - 64-79 = Groups - 127 = Broadcast
65	Holding register	Byte 1 (most significant): Scene to control: - 0x10 = Scene 0 - 0x11 = Scene 1 - 0x12 = Scene 2 - 0x13 = Scene 3 - 0x14 = Scene 4 - 0x15 = Scene 5 - 0x16 = Scene 6 - 0x17 = Scene 7 - 0x18 = Scene 8 - 0x19 = Scene 9 - 0x1A = Scene 10 - 0x1B = Scene 11 - 0x1C = Scene 12 - 0x1D = Scene 13 - 0x1E = Scene 14 - 0x1F = Scene 15

Note:
All the registers can be read back using Modbus function 03 in order to see the last commands sent.

Example:

we want to change the ADV of the DALI node 9 and set the ADV for Group 3. The Modbus registers to write are:

Modbus register 4 (byte 0) = ADV to set for node 9
Modbus register 33 (byte 0) = ADV to set for Group 3

Example:

we want to set the Scene 1 to the DALI node 5. The passages to follow are:

1)

Modbus register 65 = '11xx'

where

'11': Scene 1
'xx': not used

2)

Modbus register 64 = '0185'

where:

'01' = Increasing of +1 for sending the command
'85' = ID 5 and most significant bit to '1'.

Note:
As soon as the Byte 1 (most significant) is changed from 0 to 1, the command on DALI is sent. In order to send another command, it is necessary to change 1 to 2.

DALI commands				
Command	**Modbus register**	**Type**	**Description (hex format)**	**Responses (Input register)**
Read firmware version	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 01	Register 4096 "Firmware version"
Start Full Devices Search	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 02	Register 4096 "FULL DEVICES SEARCH STARTED"
Start Partial Devices Search	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 03	Register 4096 "PARTIAL DEVICES SEARCH STARTED"
Start Full Sensors Search	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 04	Register 4096 "FULL SENSORS SEARCH STARTED"
Start Partial Devices Search	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 05	Register 4096 "PARTIAL SENSORS SEARCH STARTED"
Enable Polling	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 09	Register 4096 "ANSWER POLLING ENABLED"

Disable Polling	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 0A	Register 4096 "ANSWER POLLING DISABLED"
Scan of DALI 1 Devices	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 0B	Register 4096 "SCAN ENABLED"
Scan of DALI 2 Devices	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 0C	Register 4096 "SCAN ENABLED"
Force refreshing of full devices connected to DALI	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 0D	Register 4096 "ONE SCAN ENABLED"
Stop Scan	4096	Holding register	Byte 1 (most significant): 00 Byte 0 (least significant): 0E	Register 4096 "SCAN DISABLED"
Add a specific DALI node to a Group	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> group number to assign Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63)	-

			Register 4096 Byte 0 (least significant): 14	
Remove a specific DALI node from a Group	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> group number to remove Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63) Register 4096 Byte 0 (least significant): 15	-
READING STATUS OF DALI BUS	4096	Holding register	Byte 1 (most significant): 00 -> ADV value (0 ÷ FE) Byte 0 (least significant): 16	Register 4096 "OK" → Status is OK "ERROR" → At least one DALI node is not answering

Setting new Power ON value	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> value of new Power ON value to set (0 ÷ FE) Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63) or group (64 ÷ 79) or broadcast (80) Register 4096 Byte 0 (least significant): 19	-
Setting new Fail Power value	4096 -4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> value of new Fail Power value to set (0 ÷ FE) Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63) or group (64 ÷ 79) or broadcast (80) Register 4096 Byte 0 (least significant): 1A	-

Setting new Fade Rate value	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> value of new Fade Rate value to set (0 ÷ FE) Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63) or group (64 ÷ 79) or broadcast (80) Register 4096 Byte 0 (least significant): 1B	-
Setting new Fade Time value	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> value of new Fade Time value to set (0 ÷ FE) Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63) or group (64 ÷ 79) or broadcast (80) Register 4096 Byte 0 (least significant): 1C	-

Setting new ID to a DALI device	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> New ID to set (0 ÷ 63) Register 4096 Byte 1 (most significant): 00 -> ID Dali node (0 ÷ 63) Register 4096 Byte 0 (least significant): 1D	-
READING MAX SETTABLE ADV OF DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali node to read (0 ÷ 63) Byte 0 (least significant): 1E	Register 4096 Value read
READING MIN SETTABLE ADV OF DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali node to read (0 ÷ 63) Byte 0 (least significant): 1F	Register 4096 Value read
READING POWER ON ADV OF DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali node to read (0 ÷ 63) Byte 0 (least significant): 20	Register 4096 Value read

READING POWER FAILURE ADV OF DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali node to read (0 ÷ 63) Byte 0 (least significant): 21	Register 4096 Value read
READING FADE RATE OF DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali node to read (0 ÷ 63) Byte 0 (least significant): 22	Register 4096 Value read
READING FADE TIME OF DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali node to read (0 ÷ 63) Byte 0 (least significant): 23	Register 4096 Value read
SET COLOURS' COORDINATES (ONLY FOR DT8 DEVICES)	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 -> coordinate Y of colour Register 4097 Byte 0 (least significant): 00 -> coordinate X of colour Register 4096 Byte 1 (most significant): 00 -> ID of the DALI ballast to set (0 ÷ 63) Register 4096 Byte 0 (least significant): 29	-

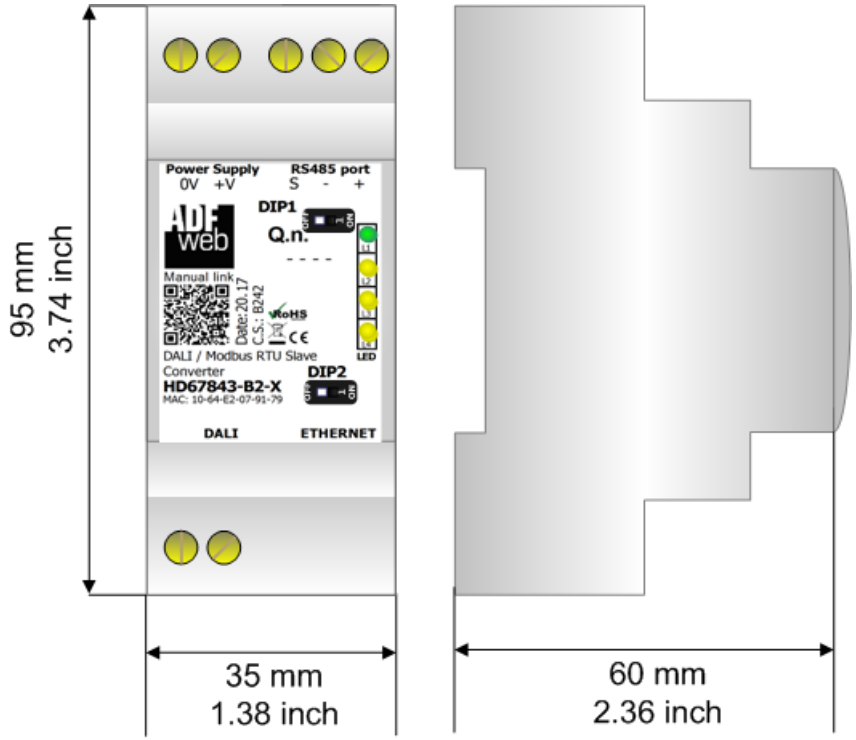
SET COLOURS' TEMPERATURE (ONLY FOR DT8 DEVICES)	4096 - 4097	Holding register	Register 4097 Byte 1 (most significant): 00 Register 4097 Byte 0 (least significant): 00 -> temperature of colour Register 4096 Byte 1 (most significant): 00 -> ID of the DALI ballast to set (0 ÷ 63) Register 4096 Byte 0 (least significant): 2A	-
SET RGB VALUE (ONLY FOR DT8 DEVICES)	4096 – 4097 - 4098	Holding register	Register 4098 Byte 1 (most significant): 00 Register 4098 Byte 0 (least significant): 00 -> Red value (0 ÷ FE) Register 4097 Byte 1 (most significant): 00 -> Green value (0 ÷ FE) Register 4097 Byte 0 (least significant): 00 -> Blue value (0 ÷ FE) Register 4096 Byte 1 (most significant): 00 -> ID of the DALI ballast to set (0 ÷ 63) Register 4096 Byte 0 (least significant): 2B	-

SET WAF VALUE (ONLY FOR DT8 DEVICES)	4096 – 4097 – 4098	Holding register	Register 4098 Byte 1 (most significant): 00 Register 4098 Byte 0 (least significant): 00 -> White value (0 ÷ FE) Register 4097 Byte 1 (most significant): 00 -> Amber value (0 ÷ FE) Register 4097 Byte 0 (least significant): 00 -> Free colour value (0 ÷ FE) Register 4096 Byte 1 (most significant): 00 -> ID of the DALI ballast to set (0 ÷ 63) Register 4096 Byte 0 (least significant): 2C	-
SET PRIMARY COLOURS VALUE (ONLY FOR DT8 DEVICES)	4096 – 4097 – 4098 – 4099 – 4100 – 4101 – 4102	Holding register	Register 4102 Byte 1 (most significant): 00 -> Primary colour value 6 (66) Register 4102 Byte 0 (least significant): 00 -> Primary colour value 6 (66) Register 4101 Byte 1 (most significant): 00 -> Primary colour value 5 (55) Register 4101 Byte 0 (least significant): 00 -> Primary colour value 5 (55) Register 4100 Byte 1 (most significant):	-

			00 -> Primary colour value 4 (44) Register 4100 Byte 0 (least significant): 00 -> Primary colour value 4 (44) Register 4099 Byte 1 (most significant): 00 -> Primary colour value 3 (33) Register 4099 Byte 0 (least significant): 00 -> Primary colour value 3 (33) Register 4098 Byte 1 (most significant): 00 -> Primary colour value 2 (22) Register 4098 Byte 0 (least significant): 00 -> Primary colour value 2 (22) Register 4097 Byte 1 (most significant): 00 -> Primary colour value 1 (11) Register 4097 Byte 0 (least significant): 00 -> Primary colour value 1 (11) Register 4096 Byte 1 (most significant): 00 -> ID of the DALI ballast to set (0 ÷ 63) Register 4096 Byte 0 (least significant): 2D	

ENABLE DT8 FEATURES (ONLY FOR DT8 DEVICES)	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali ballast to set (0 ÷ 63) Byte 0 (least significant): 2F	-
GETTING DATA FROM DALI NODE	4096	Holding register	Byte 1 (most significant): 00 -> ID Dali ballast to set (0 ÷ 63) Byte 0 (least significant): 30	-

MECHANICAL DIMENSIONS:



Housing: PVC
Weight: 200g
(Approx)

Figure 15: Mechanical dimensions scheme for HD67843-B2-x

ORDERING INFORMATIONS:

The ordering part number is formed by a valid combination of the following:

HD67843 – B 2 - x

DALI Bus power supply
Y: present (the converter feeds the DALI bus)
N: not present (the converter doesn't feed the DALI bus)

Connectors Type
2: Fixed 5mm Screw Terminal

Enclosure Type
B: 2M, 35mm DIN Rail mounting

Device Family
HD67843: DALI / Modbus Slave - Converter

Order Code: **HD67843-B2-Y** - DALI / Modbus Slave – Converter (DALI bus power supply present)
Order Code: **HD67843-B2-N** - DALI / Modbus Slave – Converter (DALI bus power supply not present)

ACCESSORIES:

Order Code: **AC34011** - 35mm Rail DIN - Power Supply 220/240V AC 50/60Hz – 12 V DC
Order Code: **AC34012** - 35mm Rail DIN - Power Supply 220/240V AC 50/60Hz – 24 V DC

DISCLAIMER:

All technical content within this document can be modified without notice. The content of the document is a under continual renewal.
For losses due to fire, earthquake, third party access or other accidents, or intentional or accidental abuse, misuse, or use under abnormal conditions repairs are charged to the user. ADFweb.com S.r.l. will not be liable for accidental loss of use or inability to use this product, such as loss of business income. ADFweb.com S.r.l. shall not be liable for consequences of improper use.

OTHER REGULATIONS AND STANDARDS:

WEEE INFORMATION

Disposal of old electrical and electronic equipment (as in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that this product may not be treated as household rubbish. Instead, it should be taken to an applicable collection point for the recycling of electrical and electronic equipment. If the product is disposed correctly, you will help prevent potential negative environmental factors and impact of human health, which could otherwise be caused by inappropriate disposal. The recycling of materials will help to conserve natural resources. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE

The device respects the 2011/65/EU + 2015/863 Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (commonly referred to as Restriction of Hazardous Substances Directive or RoHS).

CE MARKING

The product conforms with the essential requirements of the applicable EC directives.

WARRANTIES AND TECHNICAL SUPPORT:

For fast and easy technical support for your ADFweb.com SRL products, consult our internet support at www.adfweb.com.
Otherwise contact us at the address support@adfweb.com

RETURN POLICY:

If while using your product you have any problem and you wish to exchange or repair it, please do the following:

- Obtain a Product Return Number (PRN) from our internet support at www.adfweb.com. Together with the request, you need to provide detailed information about the problem.
- Send the product to the address provided with the PRN, having prepaid the shipping costs (shipment costs billed to us will not be accepted).

If the product is within the warranty of twelve months, it will be repaired or exchanged and returned within three weeks. If the product is no longer under warranty, you will receive a repair estimate.

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