

# —

## DAI Gateways

### Replacing a DAI Gateway

---

#### GPG BUILDING AUTOMATION

---

Doc.-Type: Step-by-Step Guide

Doc.-Nr. 9AKK107492A6668

Revision: A

Department: BA Engineering

Author: Engineering Team BA/DESTO

System: i-bus® KNX

Product: DG/S x.64.1.1

Page: 1/5

Date: 29 July 2019

---



#### Liability Disclaimer:

This document serves the sole purpose of providing additional, technical information and possible application and use cases for the contained products and solutions. It **does not** replace the necessary technical documentation required for planning, installation and commissioning of the product. Technical details are subject to change without notice.

Despite checking that the contents of this document are consistent with the current versions of the related hard and software of the products mentioned within, deviations cannot be completely excluded. We therefore assume no liability for correctness. Necessary corrections will be introduced as and when new versions of the document are generated.

## Introduction

Occasionally, you may need to replace a DALI gateway or exchange it for another type. In such cases there are specific steps and procedures to follow. This document explains the individual steps, including the role of the i-bus® Tool.

This procedure applies to all ABB DALI gateways!

## Objectives of the document

- Enable the commissioner to replace DALI gateways with minimum effort and to restore the required system functions.
- Explain the role of the i-bus® Tool

## Procedure for replacing DALI gateway hardware



Fig. 1 DG/S 1.64.1.1



Fig. 2 DG/S 2.64.1.1

Essentially, replacing the hardware for an ABB DALI gateway does not change or affect the DALI.

This is a special case where DALI short addresses and group assignments in the DALI devices themselves remain intact.

### Here are the basics:

All DALI settings are, and remain, stored in the DALI devices themselves.

DALI gateways always have a stored copy of the overall DALI configuration, including the group assignments, fade times, scenes and so on for each individual DALI device. This copy of the group assignment can only be adjusted or changed with the i-bus® Tool.

## Why is this data from the individual DALI devices saved in the DALI gateway?

This data is stored in case it's needed to restore a device's configuration at any point. The DALI gateway cannot distinguish between a newly added/replaced DALI device and an existing one. So generally speaking, if a DALI restore is required on a DALI device, the entire stored configuration has to be reloaded into the ballast.

If a DALI gateway needs replacing, there are two possible scenarios.

1. Replacing a gateway in a DALI system that is already configured
2. Transferring a special configuration to an existing system

## What do you need to do?

### 1. Switch off the 230 V mains power at the DALI gateway

This puts the DALI devices into a predefined state called "System Failure Level".

You can predefine this in the parameters.

Parameter	Value
Brightness on ballast voltage recovery (DALI Power-On Level)	100% (255)
Brightness on KNX or DALI voltage failure (DALI System Failure Level)	No change
Brightness on ballast recovery in operation	Actual KNX target state
Brightness on KNX bus voltage recovery and download	Last value before failure

Cannot be used when Forced operation/block, man. oper. or addit. fct active

Fig. 3 ETS parameters

### 2. Replace the DG/S x.64.1.1 with the new hardware

Program the DALI gateway with the project's applicable or **latest** application.

**Note:** You can pre-load the application before installing the gateway in the DALI system.

### 3. This next step is extremely important!

When you switch the mains power back on, the DALI gateway automatically scans the devices connected to it. While scanning, the gateway compares its internal copy of the configuration with the DALI installation. After the scan, the i-bus® Tool will indicate a conflict. In other words, the existing group assignments in the gateway do not match those stored in the ballast. In such cases, the DALI gateway does not independently overwrite the existing configuration in the DALI devices!

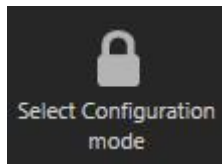
#### Connecting the DALI gateway to the i-bus® Tool

General:

DALI output(s) status						
	DALI devices	Monitored	Conflict	Lamp fault	Ballast fault	DALI fault
Output A	12	0	Yes	0	0	No

The conflict is shown on the “General page” of the i-bus® Tool

DALI:



Switching to configuration mode

The screenshot shows the DALI configuration interface. On the left, there are several status indicators: a grid with a red 'X' (Conflict in DALI groups), a grid with a red 'X' (More than 64 devices detected), a graph (At least one device is burning in), and a graph (DALI current fault). On the right, there are control buttons: 'Trigger DALI addressing', 'Use gateway values', 'Use DALI device values', 'Trigger DALI device monitoring', and 'Clear DALI device monitoring'. Below these are several status indicators with their values: 'Automatic DALI addressing' (No), 'Conflict in DALI groups' (Yes), 'All DALI device monitored' (No), 'At least one device is burning in' (No), 'DALI current fault' (No), 'Overlapping groups' (No), and 'More than 64 devices detected' (No).

Configuration mode enables the control buttons shown on the right.

#### Replacing a gateway in a DALI system that is already configured



This option allows the DALI gateway to poll configurations such as group assignments and scenes on the individual DALI devices, and save them in the gateway. When this process is complete, the conflict will disappear from the display.

This is the usual procedure when replacing a gateway.

## Transferring a special configuration to an existing system

### Use gateway values

This option allows the gateway to load/overwrite its stored configurations to the individual DALI devices. Use this function if you want to restore a specific, preset configuration to the DALI devices, e.g. if the DALI configuration was previously set and tested or you can copy configurations.

#### Caution:

A new gateway from the factory has no stored group information about the detected DALI devices! Be aware that if you choose this option when replacing a gateway, it will permanently delete all of the group assignments in the individual DALI devices!

## References to other documents

- [FAQ Home and Building Automation](#)
- [FAQ Replacing a DALI gateway](#)
- [Engineering Guide Database](#)