

DALI Gateway

DIN-rail lighting integration with DALI and SmartAPEX CAN bus connectivity.

APX-DG

DT6 / DT8

CAN BUS

DIN-RAIL



64

DALI short addresses

16

DALI groups

16

DALI scenes

250 mA

Integrated DALI supply

DALI COMMISSIONING

Read-only rescan, safe addressing of unaddressed gear and explicit full readdressing.

WEB CONFIGURATION

Network setup, device labels, groups, scenes, diagnostics and firmware workflows.

SMARTAPEX CAN BUS

Discover compatible CAN devices and bind them to DALI addresses, groups or scenes.

DT8 COLOR CONTROL

DT6 plus DT8 tunable white, XY, RGB, RGBW and RGBWAF control where supported.

02 /

Gateway status indicators

Use the front-panel LEDs to identify network state, host connection, bus traffic and power-up progress.

FRONT-PANEL INDICATORS

LK reports Ethernet link and host state. D flashes when messages are transmitted or received. PW shows the network acquisition state through its blink rate.

LK / LINK AND HOST STATUS

LED	Colour	Meaning
LK	 Red	Ethernet not connected.
LK	 Green	Ethernet connected; acquiring a DHCP IP address.
LK	 Yellow	Ethernet connected, DHCP IP acquired and connected to the host.
LK	 Blue	Ethernet connected and using a static IP address.
LK	 Purple	Ethernet connected, using a static IP address and connected to the host.

D / DATA TRAFFIC



Data activity

Indicates transmission and reception of messages via Ethernet or CAN bus.

PW / POWER AND NETWORK ACQUISITION

Pattern	Blink timing	Meaning
Fast blinking		Not connected to the network.
Slow blinking		Ethernet cable connected; attempting to obtain an IP address.
Very slow blinking		Module connected to the network with a valid IP address.

DIAGNOSTIC READING

If PW is fast blinking, check the Ethernet cable and link. If it is slow blinking, wait for DHCP. Very slow blinking means a valid network address has been obtained.

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Initial installation

Complete the physical installation first, then use the web interface to commission the DALI line.

RECOMMENDED FIRST COMMISSIONING

01

Inspect wiring

Complete and inspect mains, DALI, CAN and Ethernet wiring before applying power.

02

Power the line

Power the gateway and all DALI gear that will be discovered or addressed.

03

Find the gateway

Use the router DHCP list or SmartAPEX Finder to identify the current IP address.

04

Open the web UI

Browse to <http://<gateway-ip>/> and sign in with the current credentials.

05

Commission

Use Address Unaddressed for additions, or Full Readdress only for a deliberate rebuild.

06

Verify and label

Confirm the count, resolve offline devices, label addresses, then configure groups and scenes.

NETWORK ACCESS DEFAULTS

Item	Factory default	Installer action
Address mode	DHCP enabled	Read the assigned address from the router or Finder.
Static IP	192.168.1.150	Use only when a static configuration is intentionally selected.
Netmask	255.255.255.0	Match the site network plan.
Gateway	192.168.1.1	Match the site router when static IP is used.
Credentials	admin / admin	Change the default password after first login.

HARDWARE SPECIFICATIONS

Parameter	Value	Parameter	Value
Model number	APX-DG	Supported DALI	DT6, DT8
Power requirement	110-240 VAC	Control	Ethernet, CAN bus, DALI
Power consumption	< 5 W	DALI supply	250 mA
Operating temperature	-10 to 60 °C	Humidity	5% to 95% non-condensing
Weight	0.5 kg	Product type	DALI Gateway

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Commissioning the DALI line

Choose the least destructive action that matches the installation state.

RESCAN EXISTING DEVICES

Read-only scan of DALI short addresses 0 through 63. It does not send INITIALISE, RANDOMISE or PROGRAM SHORT ADDRESS commands.

ADDRESS UNADDRESSED

Commission only gear without a valid short address. Existing valid short addresses are preserved.

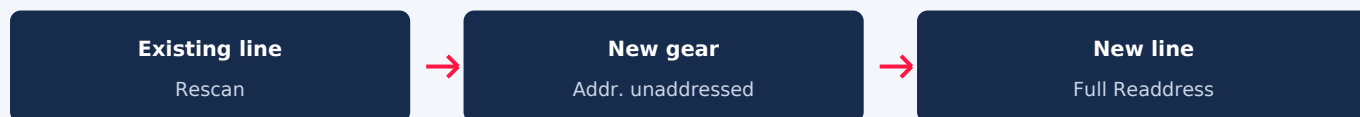
FULL READDRESS

Clears and rebuilds the DALI short-address plan. Use only for a new line or an intentionally discarded address plan.

CANCEL ADDRESSING

Requests a controlled stop. Wait for the gateway to report canceled or failed before taking further action.

ADDRESSING DECISION PATH



DESTRUCTIVE ACTION

Full Readdress can change every physical short address on the line. Back up labels, group assignments, scenes and integration settings first.

PHYSICAL ADDRESS MAINTENANCE

- Delete removes a row from the gateway local list only; it does not clear the physical driver address.
- Clear Physical Address changes the physical DALI gear and accepts an address from 0 through 63.
- After a successful clear, run Address Unaddressed to assign a new address.
- A duplicate-address warning can indicate overlapping DALI replies or a bus collision. Isolate sections and rescan.

GROUPS AND SCENES

Feature	Range	Use
Groups	0 through 15	Add or remove devices; labels are gateway metadata.
Scenes	0 through 15	Store and recall levels or DT8 values for a device or group.
Report	Line-wide view	Review memberships and stored scene information.

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Control and integration

Use the web interface for local commissioning and connect compatible SmartAPEX CAN devices for distributed control.

DEVICE CONTROL

Control area	Available control	Notes
All Devices	Broadcast control	Applies the selected action across the DALI line.
Individual device	On, off, level	Targets one DALI short address.
DT8 colour	TC, XY, RGB, RGBW, RGBWAF	Shown according to the reported device type.
Groups / scenes	Membership, store, recall	Use after the addressing plan is stable.
Startup	Last state / normal	Verify on each approved driver model.

PRESERVE PREVIOUS STATE

When Last state is selected, the gateway programs and verifies SYSTEM FAILURE LEVEL = FF and POWER ON LEVEL = FF. The physical DALI driver is responsible for preserve behavior; the gateway does not replay a cached brightness level during recovery.

- Power-cycle the gateway only while driver mains remain on.
- Power-cycle the driver mains separately.
- Repeat both tests for each approved driver model and record the result.

SMARTAPEX CAN DEVICES

DISCOVER

Search CAN Devices for a full discovery, then use Refresh to update the cached state.

CONFIGURE

Review Overview and open Configuration only for fields supported by the device firmware.

BIND

Create documented bindings to local DALI addresses, groups or scenes and verify after restart.

NETWORK, SECURITY AND UPDATE

Area	Functions	Installer guidance
Settings	DHCP, static IP, password, reboot, reset	Record network values before applying changes.
Update	Gateway and compatible CAN firmware	Use the correct encrypted .bin package and keep power connected.
Factory reset	Restore gateway defaults	Does not guarantee physical DALI addresses are cleared.

06 /

Diagnostics and handover

Capture evidence before repeating a commissioning operation, then leave the site with a documented final state.

SERVICE ENDPOINTS

Endpoint	Purpose
/version.cgi	Gateway firmware and version information
/devices.cgi	Current device list and stored data
/api/addressing-log	Complete addressing log immediately after failure
/api/reset-cause	Last reset reason and raw reset value
/api/config-health	Configuration health summary
/dali-startup-status.cgi	Startup and preserve configuration status

TROUBLESHOOTING QUICK REFERENCE

Web page does not open	Check link, power, DHCP table or Finder; then browse directly to the current IP.
Rescan finds fewer devices	Check DALI power, bus short, loose terminals, line drop, isolated sections and duplicate addresses.
Address Unaddressed makes no change	This is expected when every responding device already has a valid short address.
Addressing fails	Save the addressing log, verify bus health and driver models, isolate suspect sections and contact support.
CAN configuration does not load	Confirm ID and firmware, use Refresh once, wait for completion and avoid parallel reads.

SITE HANDOVER CHECKLIST

- | | |
|---|--|
| ☐ Gateway firmware, IP mode and address recorded | ☐ Groups and scenes documented and tested |
| ☐ Default password changed | ☐ Startup behavior tested for each driver model |
| ☐ Expected DALI count verified; offline devices resolved | ☐ CAN devices and bindings tested after restart |
| ☐ Duplicate-address warning absent | ☐ Final configuration and diagnostic records archived |

SUPPORT PACKAGE

Include firmware version, reset cause, addressing log, expected/detected counts, driver make/model, bus topology, measured bus voltage and photos of terminals and wiring.