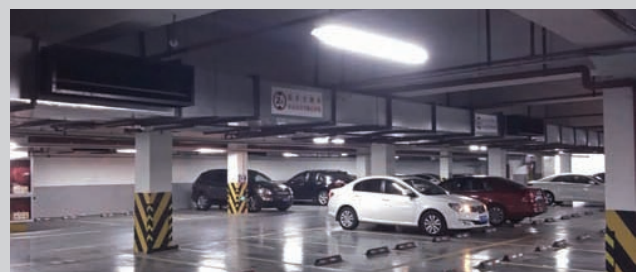
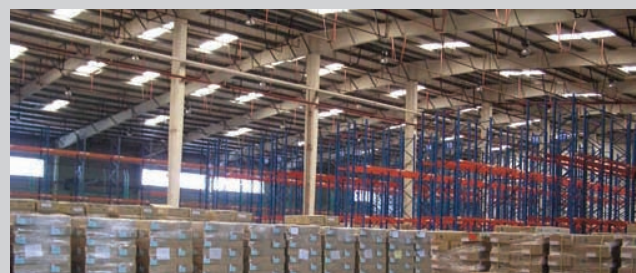




# SGB Series

## Lighting Control Smart Green Box



### Features

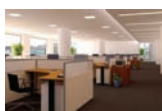
- Each Smart Green Box can work stand alone
- Multiple Smart Green Boxes can be linked together using signal wires
- Each lighting control module in the Smart Green Box can be set to a different D-Bus address using on board DIP switches
- Multiple lighting circuits can be combined into groups or scenes
- Multiple access using various types of control interfaces such as touch panel displays, digital switches, lighting control system software and third party BA systems
- Auto-learning capability, easy to setup, software setup also available
- Backup Control inside Smart Green Boxes
  - Lighting Control Module : On board manual control buttons
  - External Latching Relay : Manual control switch
- LEDs to indicate the status of each connected relay
- LEDs to indicate the communication and system statuses
- Choice of whether to have the relays all off or restored to its pre-interruption state on power up.
- DAE's lighting control system does not require a central processor, as each element has its own intelligence and can act independently.
- Easily programing without complicated software
- Can be synchronized with both Conventional Wall Switch and Digital Switch simultaneously
- Can work with sensors for daylight harvest, occupancy, vacancy and dimming applications
- Touch panel with schedule control
- Can be synchronized with third party software through Modbus gateway
- Fail-Safe Architecture (If the touch panel fails, you still can use the switches or relay drivers or relay levers); Redundant central control (Although one of the touch panel or third party software fails, the other one still works.)

### Applications

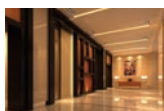
- Commercial Buildings
- Office Buildings
- Hotels
- Offices
- Public Areas
- Libraries
- Conference Rooms



Commercial Building



Office



Public Area



Conference Room

### Overview

DAE's lighting control Smart Green Box (SGB Box) is one of the world's easiest to use lighting control system; it is unparalleled in its convenience and ease of use during installation, configuration, testing and maintenance.

Each SGB Box only need a simple two wire communication cable to connect to each other, making it very easy to interconnect, versatile to reconfigure and easy to expand as needed.

SGB Box has many types of control interfaces available, including digital switches, touch panel displays, remote control using PCs. SGB Box can be combined in many ways for use in small scales (such as individual spaces) or large scale (such as entire buildings) applications.

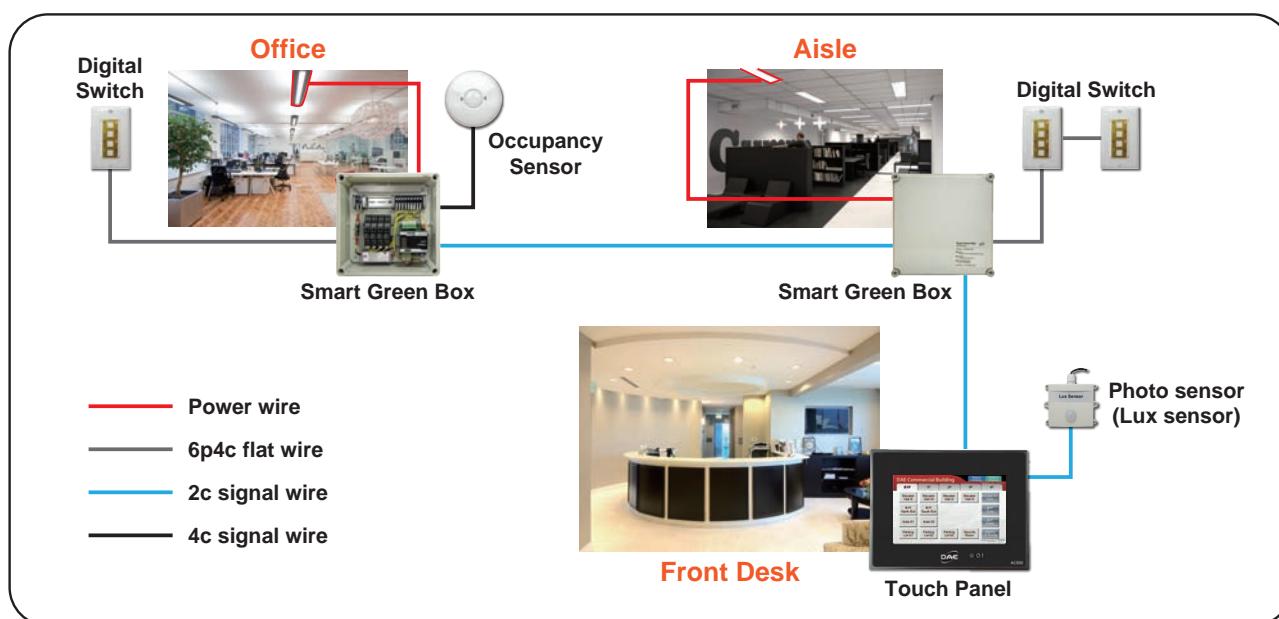
Series	Type of control	Interface available
SGB1000	On/Off	Touch panel, digital switch photo sensor (lux sensor)
SGB1500	On/Off	Touch panel, digital switch occupancy Sensor
SGB2000	Dimming	Touch panel, digital switch occupancy sensor, photo sensor

### Capacity of Each Circuit (LR02-30A)

Loading	Capacity <sup>1</sup>
120Vac	Type A : 1000W
	Type B : 1250W
	Type C : 2200W
240Vac	Type A : 2000W
	Type B : 2500W
	Type C : 4400W
277Vac	Type A : 2200W
	Type B : 2750W
	Type C : 4800W
Type A : T5、LED、compact fluorescents Type B : T8 (tube fluorescents) Type C : incandenscent bulbs, halogen bulbs	
Power Wire	Wire: 10~24AWG      Voltage: 90~277VAC

<sup>1</sup> Capacity depends on 50,000 times of on/off switch.

## System Architecture



## Specifications

Item	Description
Input Power	AC 120~277V, 50/60 Hz
Output Ports	SGB1000, SGB1500 : AC 90~277V, 30A each channel <sup>2</sup> SGB2000 : AC 0~10V each channel
Input Ports	SGB1000 : n/a SGB1500, SGB2000 : dry contact input
Power Consumption	4-channel : 1.1VA 8-channel : 2.5VA 16-channel : 6VA
Operating Environment	Temperature: 0 to 60°C Humidity: 0 to 95% (non-condensing)
Device Address	1 to 64, set using DIP switches
IS Switch Port	RJ11 jack
Network Bus	D-Bus, 2200 feet max between each box, total length 3200 feet max use CC110 repeater for longer network lengths

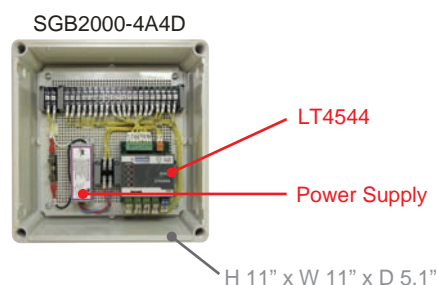
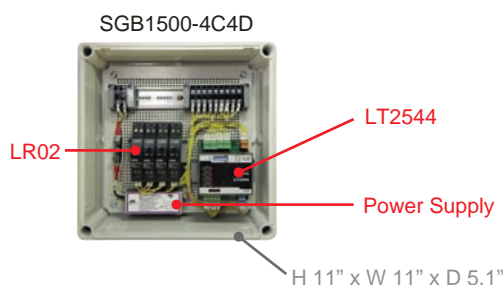
<sup>2</sup> Please see capacity of each circuit for detail.

Energy Saving Solutions	DAE Solutions	User Interface
Schedule Control	SGB1000, SGB2000	Touch panel
Daylight Harvest	SGB1000, SGB2000	Touch panel, photo sensor (lux sensor)
Automatic Shut-Off	SGB1500	Occupancy sensor, wall switch <sup>3</sup> , digital switch
Occupancy Dimming	SGB2000	Occupancy sensor
Task Tuning	SGB2000	Touch panel, digital switch
Plug Load Control	SGB1000	Touch panel, digital switch

<sup>3</sup> Wall switch must be push button

## Smart Green Box Details &amp; Ordering Code

Ordering Code	Description	Details
SGB1000-4C	4-circuit lighting control package	LT2504 x 1, LR02 x 4, Power supply x 1
SGB1000-8C	8-circuit lighting control package	LT2508 x 1, LR02 x 8, Power supply x 1
SGB1000-16C	16-circuit lighting control package	LT2508 x 2, LR02 x 16, Power supply x 1
SGB1500-4C4D	4-circuit lighting control package with 4 switch/sensor interface	LT2544 x 1, LR02 x 4, Power supply x 1
SGB1500-8C8D	8-circuit lighting control package with 8 switch/sensor interface	LT2544 x 2, LR02 x 8, Power supply x 1
SGB2000-4A4D	4-circuit dimming control package with 4 switch/sensor interface	LT4544 x 1, Power supply x 1



## Components in SGB Box

Ordering Code	Description
LT2544	4-channel lighting control module with 4 switch/sensor interface
LT2504	4-channel lighting control module
LT2508	8-channel lighting control module
LT4544	4-channel dimming control module with 4 switch/sensor interface
LR02-30A <sup>4</sup>	30A External latching relay
Power supply <sup>4</sup>	24VDC power supply, input 120~277Vac

<sup>4</sup>UL, CUL Listed

LT2504



LT2508



LR02-30A



LT2544



LT4544



Power Supply

## Touch Panel

Ordering Code	Description
ACS40	4.3" touch panel, support schedule control
ACS50	7" and 10" touch panel with Ethernet <sup>5</sup> support schedule control, manual control, daylight harvest, and task tuning

Note: ACS converter and power supply included  
<sup>5</sup>Support remote monitoring with software



ACS50-7E (7")



ACS40

## Digital Switch

Ordering Code	Description
IS45	4-key digital switch
IS48	8-key digital switch

Note: Cover plate available separately



IS45



IS48

## Sensor

Ordering Code	Description
SRC3-K17	Occupancy sensor with dry contact
SRC4-2N4N	Photo sensor (lux sensor) with RS485



SRC3-K17



SRC4-2N4N