



**ADB SAFEGATE RELIANCE Navigator™ Installation and Operation  
Manual**  
**Airport Lighting Control System**

**Spare Parts**

SP\_2077, Rev. A, 2020/01/29

**ADB**   
**SAFEGATE**



## A.0 Disclaimer / Standard Warranty

### CE certification

The equipment listed as CE certified means that the product complies with the essential requirements concerning safety and hygiene. The European directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

### ETL certification

The equipment listed as ETL certified means that the product complies with the essential requirements concerning safety and FAA Airfield regulations. The FAA directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

### All Products Guarantee

ADB SAFEGATE will correct by repair or replacement per the applicable guarantee above, at its option, equipment or parts which fail because of mechanical, electrical or physical defects, provided that the goods have been properly handled and stored prior to installation, properly installed and properly operated after installation, and provided further that Buyer gives ADB SAFEGATE written notice of such defects after delivery of the goods to Buyer. Refer to the Safety section for more information on Material Handling Precautions and Storage precautions that must be followed.

ADB SAFEGATE reserves the right to examine goods upon which a claim is made. Said goods must be presented in the same condition as when the defect therein was discovered. ADB SAFEGATE further reserves the right to require the return of such goods to establish any claim.

ADB SAFEGATE's obligation under this guarantee is limited to making repair or replacement within a reasonable time after receipt of such written notice and does not include any other costs such as the cost of removal of defective part, installation of repaired product, labor or consequential damages of any kind, the exclusive remedy being to require such new parts to be furnished.

ADB SAFEGATE's liability under no circumstances will exceed the contract price of goods claimed to be defective. Any returns under this guarantee are to be on a transportation charges prepaid basis. For products not manufactured by, but sold by ADB SAFEGATE, warranty is limited to that extended by the original manufacturer. This is ADB SAFEGATE's sole guarantee and warranty with respect to the goods; there are no express warranties or warranties of fitness for any particular purpose or any implied warranties of fitness for any particular purpose or any implied warranties other than those made expressly herein. All such warranties being expressly disclaimed.

### Standard Products Guarantee

Products of ADB SAFEGATE manufacture are guaranteed against mechanical, electrical, and physical defects (excluding lamps) which may occur during proper and normal use for a period of two years from the date of ex-works delivery, and are guaranteed to be merchantable and fit for the ordinary purposes for which such products are made.



#### Note

See your sales order contract for a complete warranty description.

### FAA Certified product installed in the United States or in US Military installations guarantee

ADB SAFEGATE L858 Airfield Guidance Signs are warranted against mechanical and physical defects in design or manufacture for a period of 2 years from date of installation, per FAA AC 150/5345-44 (applicable edition).

ADB SAFEGATE L858(L) Airfield Guidance Signs are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years from date of installation, per FAA EB67 (applicable edition).

ADB SAFEGATE LED light fixtures (with the exception of obstruction lighting) are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years from date of installation, per FAA EB67 (applicable edition).



## Note

See your sales order contract for a complete warranty description.

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## Liability

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### WARNING

Use of the equipment in ways other than described in the catalog leaflet and the manual may result in personal injury, death, or property and equipment damage. Use this equipment only as described in the manual.

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ADB SAFEGATE cannot be held responsible for injuries or damages resulting from non-standard, unintended uses of its equipment. The equipment is designed and intended only for the purpose described in the manual. Uses not described in the manual are considered unintended uses and may result in serious personal injury, death or property damage.

Unintended uses, includes the following actions:

- Making changes to equipment that have not been recommended or described in this manual or using parts that are not genuine ADB SAFEGATE replacement parts or accessories.
- Failing to make sure that auxiliary equipment complies with approval agency requirements, local codes, and all applicable safety standards if not in contradiction with the general rules.
- Using materials or auxiliary equipment that are inappropriate or incompatible with your ADB SAFEGATE equipment.
- Allowing unskilled personnel to perform any task on or with the equipment.

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# 1.0 ADB Safegate RELIANCE Navigator Airport Lighting System

The scope of this manual is to assist you when installing and connecting the components of the RELIANCE Navigator™ Airfield Lighting Control System.

The project specific contract / engineering drawings and instructions shall also be followed for information regarding location, mounting requirements, fixing and connecting all components of the system.

## 1.1 ADB Safegate RELIANCE Navigator Airport Lighting Control System

The ADB Safegate RELIANCE Navigator™ Airfield Lighting System represents the next generation of lighting control systems specifically designed for airports that seek a cost-effective control and monitoring solution, such as general aviation airports or military bases. Typically, this system can be used to replace hard-wired control desks and mimic panels (L-821/L-841 type) providing basic control and monitoring of airfield ground lighting functions.



### 1.1.1 Airport Lighting Control System

#### Compliance with Standards

<b>FAA:</b>	L-821 AC 150/5345-3 (Current Edition). ETL Certified.
<b>ICAO:</b>	Annex 14, Vol. 1, para. 5.3 and 8.3 and Aerodrome Design Manual part 5, para. 3.4 and 3.7.
<b>Military:</b>	UFC 3-535-01 par. 15-3.

#### Hardware Options

- Second Touchscreen for tower or vault
- Multiple 15-inch Touchscreen display size options
- Audible alarm speakers
- Communication methods: Fiber optic or Ethernet wireless radio communication link
- CCR Monitoring Kit : Primary Power; Remote/Local and CCR ON Current Sensor
- UPS with UL1449 surge protection
- Remote dial-in capability (modem and software) for remote service and maintenance. A dedicated telephone line (customer supplied) is connected to a modem that is added to the panel PC.
- L-854 radio remote control (see data sheet 3002)
- Phone dial-in device for password-protected lighting control
- Photocell (day vs. night input)

## Operating Conditions

Operating Temperature:	0 °C (+32 °F) to +45 °C (+113 °F)
Extended Operating Temperature <sup>1</sup> :	-18 °C (0 °F) to +45 °C (+113 °F)
Relative Humidity:	10-95% at 40 °C (non-condensing)

### Notes

<sup>1</sup> Extended Operating Temperature available with the purchase of the Extreme Temperature Kit

## Environmental Protection

Touchscreen Front Panel:	NEMA 4 (IP 65)
Control PLC Cabinet:	NEMA 4 (IP 65)

## Electrical Supply

### Touchscreen/Panel PC

Input power: Single phase, 100-240 VAC, 50/60 Hz

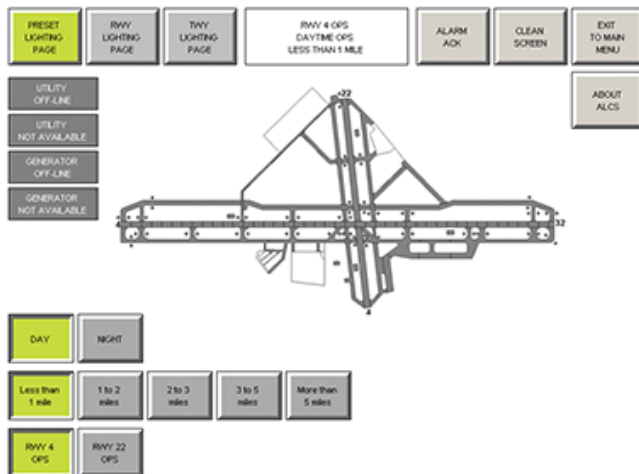
### PLC Control Cabinet

Input power: Single phase, 100-264 VAC, 50/60 Hz

## Dimensions

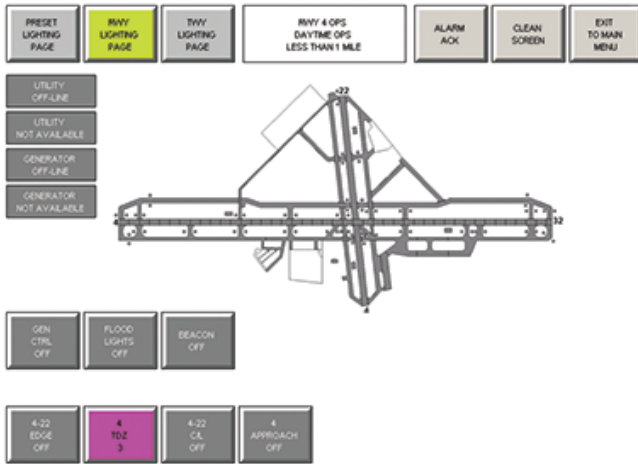
12" Touchscreen/Panel PC with Stand (H × W × D)	
10.6 × 13.41 × 2.78 – in	(26.9 × 34.06 × 7.06 – cm)
15" Touchscreen/Panel PC with Stand (H × W × D)	
12.5 × 15.6 × 2.78 - in	(31.76 × 39.65 × 7.06 - cm)
Stainless Steel Enclosure (H × W × D)	
41.75 × 35.75 × 10.75 – in	(106.0 × 90.8 × 27.3 – cm)
30 x 30 x 10 in	76.2 x 76.2 x 25.4 cm

Figure 1: Typical Preset Lighting Page (Shown with optional static graphic)





**Figure 2: Typical Runway Lighting Page (Shown with “pop up” button configuration option)**



### 1.1.2 Terms and Abbreviation

Term / Abbreviation	Description
ALCS	Airfield Lighting Control System
ALCMS	Airfield Lighting Control and Monitoring System
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
PLC	Programmable Logic Controller
HMI	Human Machine Interface (i.e. Touchscreen)
CCR	Constant Current Regulator



## 2.0 Parts

**Ordering Code**            44A7675 - X X 1 1 X X - X X 0

**Touchscreen**

- 1 = One 12-inch PC (in tower only)
- 2 = One 15-inch PC (in tower only)
- 3 = Two 12-inch PC (in tower and vault)
- 4 = Two 15-inch PC (in tower and vault)

**Communications Package**

- 1 = No communication extension<sup>1</sup>
- 2 = Multi-mode fiber optic communication extension<sup>2</sup>
- 3 = Single-mode fiber optic communication extension<sup>2</sup>
- 4 = 2.4 GHz radio communication extension

**UPS**

- 1 = External UPS with 15-minute backup<sup>3</sup>

**Alarm Package**

- 1 = External speakers at touchscreen station

**CCR Control**

- 1 = No B1 or B10 control provided<sup>4</sup>
- 2 = Separate B1 or B10 control provided<sup>5</sup>

**Remote Dial-In**

- 1 = No dial-in
- 2 = Remote dial-in diagnostic included

**Extreme Temperature Kit**

- 1 = No electric heater
- 2 = Electric heater mounted in PLC Cabinet<sup>6</sup>

**Second PC Mounting Option**

- 0 = External mounting of second PC<sup>7</sup>
- 1 = Internal mounting of second PC<sup>8</sup>

**Notes**

- All fiber optic cables should be terminated with ST style connectors. Fiber optic cable and connectors not provided by ADB SAFEGATE.
- <sup>1</sup> PLC cabinet must be within 9 ft of Touchscreen/PC.
- <sup>2</sup> Fiber optic cable supplied by others, multi-mode wavelength 1300 nanometers, single-mode 1310 nanometers.
- <sup>3</sup> For use with 120 VAC 60 Hz operation only.
- <sup>4</sup> Use this option if all CCRs present do not require B1 (5-Step) or B10 (3-Step) to activate the low-intensity step.
- <sup>5</sup> Use this option if any CCRs present require both B1 (5-Step) or B10 (3-Step) and CC to activate the low-intensity step.
- <sup>6</sup> Extreme Temperature Kit includes 200 W heater that allows a decrease in minimum operating temperature to -18 °C (0 °F).
- <sup>7</sup> Use this option if it is desired to mount the vault touchscreen outside of the PLC cabinet (i.e. on a desk).
- <sup>8</sup> Use this option if it is desired to mount the vault touchscreen inside the PLC cabinet.



## Appendix A: SUPPORT

Our experienced engineers are available for support and service at all times, 24 hour/7 days a week. They are part of a dynamic organization making sure the entire ADB SAFEGATE is committed to minimal disturbance for airport operations.

### ADB SAFEGATE Support

#### Live Technical Support - Americas

If at any time you have a question or concern about your product, just contact ADB SAFEGATE's technical service department. Trained in all areas of system issues, troubleshooting, quality control and technical assistance, our highly experienced Technical support specialists are available 24 hours a day, seven days a week to provide assistance over the phone.

ADB SAFEGATE **Americas Technical Service & Support (US & Canada): +1-800-545-4157**

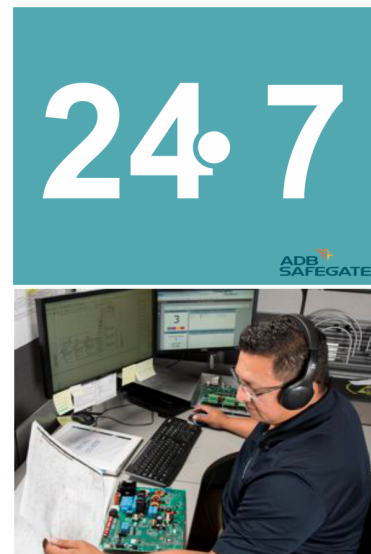
**ADB SAFEGATE Americas Technical Service & Support (International): +1-614-861-1304**

During regular business hours, you can also Chat with a Service Technician. We look forward to working with you!

#### Before You Call

When you have an airfield lighting or system control system problem it is our goal to support airfield maintenance staff as quickly as possible. To support this effort we ask that you have the following information ready before calling.

- The *airport code*
- If not with an airport, then company name (prefer customer id number)
- Contact phone number and email address
- Product with part number preferable or product number
- Have you reviewed the product's manual and troubleshooting guide
- Do you have a *True RMS* meter available (and any other necessary tools)
- Be located with the product ready to troubleshoot



#### Note

For more information, see [www.adbsafegate.com](http://www.adbsafegate.com), or contact ADB SAFEGATE Support via email at [support@adbsafegate.com](mailto:support@adbsafegate.com) or

Brussels: +32 2 722 17 11

Rest of Europe: +46 (0) 40 699 17 40

Americas: +1 614 861 1304. Press 3 for technical service or press 4 for sales support.

China: +86 (10) 8476 0106

### A.1 ADB SAFEGATE website

The ADB SAFEGATE website, [www.adbsafegate.com](http://www.adbsafegate.com), offers information regarding our airport solutions, products, company, news, links, downloads, references, contacts and more.

## A.2 Recycling

### A.2.1 Local authority recycling

The disposal of ADB SAFEGATE products is to be made at an applicable collection point for the recycling of electrical and electronic equipment. The correct disposal of equipment prevents any potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling. The recycling of materials helps to conserve natural resources. For more detailed information about recycling of products, contact your local authority city office.

### A.2.2 ADB SAFEGATE recycling

ADB SAFEGATE is fully committed to environmentally-conscious manufacturing with strict monitoring of our own processes as well as supplier components and sub-contractor operations. ADB SAFEGATE offers a recycling program for our products to all customers worldwide, whether or not the products were sold within the EU.

ADB SAFEGATE products and/or specific electrical and electronic component parts which are fully removed/separated from any customer equipment and returned will be accepted for our recycling program.

All items returned must be clearly labelled as follows:

- For *ROHS/WEEE* Recycling
- Sender contact information (Name, Business Address, Phone number).
- Main Unit Serial Number.

ADB SAFEGATE will continue to monitor and update according for any future requirements for *EU directives* as and when *EU member states* implement new *regulations* and or *amendments*. It is our aim to maintain our *compliance plan* and assist our customers.

## Company Addresses

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Contact: Tel.: +32 2 722 17 11, Fax: +32 2 722 17 64	Email: <a href="mailto:marketing@adbsafegate.com">marketing@adbsafegate.com</a> Internet: <a href="http://www.adbsafegate.com">www.adbsafegate.com</a>
Americas LLC	ADB SAFEGATE, Americas: 977 Gahanna Parkway, Columbus, OH 43230 USA
Contact: Tel.: +1 (614) 861 1304, Fax: +1 (614) 864 2069	Email: <a href="mailto:sales.us@adbsafegate.com">sales.us@adbsafegate.com</a> Internet: <a href="http://www.adbsafegate.com">www.adbsafegate.com</a>
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ADB SAFEGATE Airfield Technologies Ltd. China	ADB SAFEGATE, China: Unit 603, D Block, CAMIC International Convention Center, No 3, Hua Jia Di East road, ChaoYang district, Beijing 100102 P.R. China
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