



Advanced Control Equipment (ACE2)

Spare Parts

SP_2084, Rev. A, 2020/03/11


**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.

Liability



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.

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.

© ADB SAFEGATE BV

This manual or parts thereof may not be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, nor otherwise, without ADB SAFEGATE BV's prior written consent.

This manual could contain technical inaccuracies or typographical errors. ADB SAFEGATE BV reserves the right to revise this manual from time to time in the contents thereof without obligation of ADB SAFEGATE BV to notify any person of such revision or change. Details and values given in this manual are average values and have been compiled with care. They are not binding, however, and ADB SAFEGATE BV disclaims any liability for damages or detriments suffered as a result of reliance on the information given herein or the use of products, processes or equipment to which this manual refers. No warranty is made that the use of the information or of the products, processes or equipment to which this manual refers will not infringe any third party's patents or rights. The information given does not release the buyer from making their own experiments and tests.

TABLE OF CONTENTS

1.0 Introduction.....	1
1.1 Advanced Control Equipment.....	1
2.0 Parts.....	3
2.1 Parts List.....	3
A.0 SUPPORT.....	5
A.1 ADB SAFEGATE website.....	5
A.2 Recycling.....	6
A.2.1 Local authority recycling.....	6
A.2.2 ADB SAFEGATE recycling.....	6

1.0 Introduction

This section describes the L-827/ L-829 Advanced Control Equipment (ACE2™).

Note
ACE and ACE2 are trademarks of ADB Airfield Solutions.

The ACE2 operates either as the remote interface between the L-890 ALCMS and any controlled element in the airfield lighting vault or as the stand-alone regulator/monitor performing all L-827/L-829 functions in accordance with FAA AC 150 / 5345-10F. The ACE2 is a universal device that can be used to control any type of CCR and/or controlled element regardless of the manufacturer.

L-827/L-829 ACE2

The ACE2 can be physically packaged as a Combo Box-Mount (Figure 3), a Wall-Mount (Figure 1), or a CCR Internal-Mount (Figure 2). The Combo Box Assembly is a wall-mount version, which houses the ACE2 controller board, the IRMS board, and the CVM. The Remote-Mount is typically placed on top of the CCR. The Wall-Mount is usually bolted to a wall or can be mounted on the front of a CCR. The internal-mount is mounted inside a ADB Airfield Solutions L-828 CCR. This combination is called an L-829 CCR.

1.1 Advanced Control Equipment

Compliance with Standards

FAA: Monitoring: Certified to AC 150/5345-10 (Current Edition). ETL Certified.
Insulation Resistance: AC 150/5340-26 Chapter 3, Section 2, para. 27.

Overview

The ACE2 can operate either as the remote interface between the L-890 ALCMS and any controlled element in the airfield lighting vault or as the stand-alone constant current regulator (CCR) monitor, performing all L-827/L-829 functions in accordance with FAA AC 150 /5345-10. The ACE2 is a universal device that can be used to control any type of CCR and/or controlled element regardless of the manufacturer.

The ACE2 can be packaged as a remote mount, wall mount, CCR internal mount, or Combo Box. A remote mount is typically placed on top of the CCR. The wall mount is typically bolted to a wall or can be mounted on the front of a CCR. The internal mount is mounted inside a ADB Safegate L-828 CCR (Also called a L-829 CCR). The Combo Box Assembly is a wall-mount version, which houses the ACE controller board. The Combo Box Assembly also houses the IRMS board and the CVM, which are normally mounted inside a ADB Safegate L-829 CCR.

Each CCR and controllable item is connected to an ACE2. The ACE2 is a microprocessor-based module that includes all of the communication, control commands, input/output inter-face, and fail-safe functionality for the controlled element.

Note
For those applications that require:

- Connection with up to a four-circuit L-847
- Up to eight discrete input or outputs

Use ADB SAFEGATE's first generation ACE system. Request data sheet 2016 for more information.

2.0 Parts

To order parts, call ADB Safegate Customer Service or the local ADB Safegate representative. Use this four-column parts list to describe and locate parts.

This description uses a fictional number to show the use of the parts list sections. It does not provide the actual parts list.

The Part Number column gives the ADB Safegate part number. The Description column gives the part name, its dimensions, and other characteristics when appropriate. Indentions show the relationships among assemblies, subassemblies, and parts.

Table 1: Simulated Parts List

Part Number	Description	Quantity	Note
44A6602-101320	Assembly	1	1
xxxxxxx	Part	1	
xxxxxxx	Part or Assembly		
xxxxxxx	Assembly	1	

Notes

¹ NOTE A

The Quantity column contains the quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

The Note column contains letters that refer to notes at the end of each parts list. Notes contain special ordering or product/part version information.

2.1 Parts List

L-827/L-829 ACE2 Ordering Code

This subsection provides the ordering code for the L-827 Advanced Control Equipment (ACE2).

Table 2: ACE2 Spare Parts List

Part Number	Description	Quantity	Note
33A0079	Cable, Flat Ribbon	1	
44A4802-1	PCB Assembly – Lamps-Out Monitoring 1- channel	1	
44A4802-2	PCB Assembly – Lamps-Out Monitoring 2- channel	1	
44A4802	PCB Assembly – Lamps-Out Monitoring 3- channel	1	
44A6377	PCB Assembly – Main	1	
44A6494	LCD Display	1	

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**

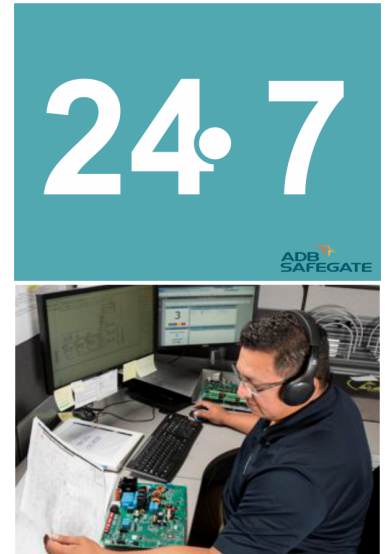
ADB SAFEGATE Americas Technical Service & Support (International): +1-614-861-1304

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, or contact ADB SAFEGATE Support via email at 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, 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

ADB SAFEGATE	ADB SAFEGATE, Belgium: Leuvensesteenweg 585, B-1930 Zaventem Belgium
Contact: Tel.: +32 2 722 17 11, Fax: +32 2 722 17 64	Email: marketing@adbsafegate.com Internet: www.adbsafegate.com
Americas LLC	ADB SAFEGATE, Americas: 977 Gahanna Parkway, Columbus, OH 43230 USA
Contact: Tel.: +1 (614) 861 1304, Fax: +1 (614) 864 2069	Email: sales.us@adbsafegate.com Internet: www.adbsafegate.com
ADB SAFEGATE Sweden AB	ADB SAFEGATE, Sweden: Djurhagegatan 19 SE-213 76 Malmö Sweden
Contact: Tel.: +46 (0)40 699 17 00, Fax: +46 (0)40 699 17 30	Email: marketing@adbsafegate.com Internet: www.adbsafegate.com
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
Contact: Tel.: +86 (10) 8476 0106, Fax: +86 (10) 8476 0090	Email: china@safegate.com Internet: www.adbsafegate.com
ADB SAFEGATE Germany GmbH	ADB SAFEGATE Germany GmbH, Mannheim: Konrad-Zuse-Ring 6, D-68163 Mannheim Germany
Contact: Tel.: +49 (621) 87 55 76-0, Fax: +49 (621) 87 55 76-55	Email: marketing@adbsafegate.com Internet: www.adbsafegate.com



Powering Your Airport Performance from Approach to Departure

adbsafegate.com

Copyright © ADB SAFEGATE, all rights reserved

