



Incandescent In-pavement ALSF and MALSR Approach Light,
Style 2
High-Intensity / Medium-Intensity

Spare Parts

SP_2029, 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.

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.

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1.0 Introduction

This section describes the ADB Safegate F-Range high intensity Style 2 approach light.

1.1 F-Range High Intensity Style 2 Approach Light

See [Figure 1](#) and [Figure 2](#). The F-Range high intensity Style 2 approach light marks the centerline, crossbar, and side row barrettes. It is manufactured in accordance with FAA specification FAA-E-2491 (to be superseded by FAA-E-2952) and to FAA-E-2968 (0.50 inches height above grade). The fixture is supplied with either no filters (white), or 3 red filters, or 3 green filters.

Figure 1: Top View of F-Range High Intensity Style 2 Approach Light

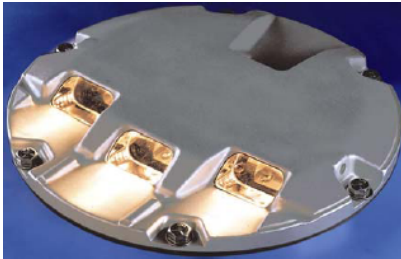
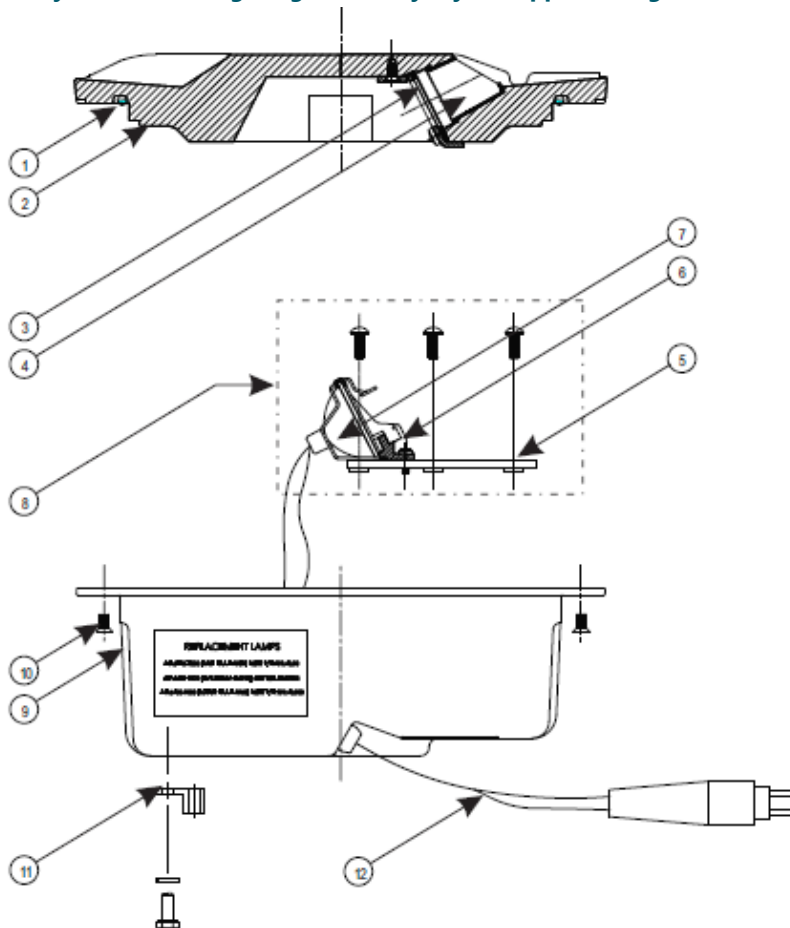


Figure 2: Cutaway View of F-Range High Intensity Style 2 Approach Light



- | | | | |
|--------------|-----------------------------|-----------------|------------------------------|
| 1. O-Ring | 4. Light Channel | 7. Lamp | 10. Phillips Flat Head Screw |
| 2. Top Cover | 5. Optical Support Assembly | 8. Optical Unit | 11. Ground Lug |
| 3. Prism | 6. Lamp Holder Assembly | 9. Inner Pan | 12. Cord Set |

1.2 Incandescent In-pavement ALSF and MALSR Approach Light

Compliance with Standards

FAA:	ALSF ETL Verified to FAA-E-2952 (Detail Specification for Approach Light, Chemical Resistant, High Intensity, Semi-flush Steady Burning) MALSR ETL Verified to FAA-E-2968 (Detail Specification for Semi-flush Approach Light Units for Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights)
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Uses

- ALSF high-intensity approach centerline, crossbar, and side row barrettes in white, green, and red
- MALSR medium-intensity approach in white and threshold in green

2.0 Parts

To order parts, call ADB Safegate Customer Service or your local representative. This subsection describes how to use the parts diagrams covered later in this section. It does not provide the actual parts list.

ALSF Ordering Code 44A6148 - X000

Color

- 1 = White (Style A)
- 2 = Green (Style B)
- 3 = Red (Style C)

Notes

- A Shorting Device is also available. If any lamp opens, the shorting device places a short on the secondary of the isolation transformer. This allows certain monitoring systems to detect a lamp out. The shorting device ordering code is 44A6143.
- To retrofit into older FAA -E-2491 applications, a flange ring is required. The flange ring ordering code is 128A145 -SS-G.

MALSR Green Ordering Code 44A6440 - 1000

Notes

- For FAA -E-2968 MALSR system, Style II, unidirectional green applications, this fixture uses three 62 W lamps and is a photometric equivalent to the older style 200 W L -850E fixtures that were used in this application. FAA -E-2968 MALSR applications are not toed.
- Encapsulated (FAA Style) isolation transformers are available for voltage - driven, medium-intensity approach lighting applications. For three 62 W lamp applications, a 186 W, 240 VAC to 28.2 VAC transformer is used (Part No. 35C0096).

MALSR White Ordering Code 44A6440 - 2000

Notes:

- For FAA -E-2968 MALSR medium-intensity system, Style I, unidirectional white applications, this fixture uses one 105 W lamp and is a photo - metric equivalent to the older style 200 W L -850B fixtures that were used in this application. FAA -E-2968 MALSR applications are not toed.
- Encapsulated (FAA Style) isolation transformers are available for voltage - driven, medium-intensity approach lighting applications. For 105 W, 240 VAC to 15.9 VAC applications, use transformer Part No. 35C0095.

2.1 F-Range IAML Parts List

Table 1: Assembly Common Parts

Description	Part No.
Cable assembly, series jumper	44A5955
Cable clamp	4071.50.090
Cord set, L-823	73A0133-35
Cord set grommet	63A1014
Cord set terminal, female	6111.87.140
Filter spring clip	4071.50.160
Lamp retainer spring	4071.58.510
O-ring, pressure release screw	63B0267-011
O-ring, top cover	MS00001-376-01
Pressure release screw	60A2602
Prism clamp	4071.50.360
Prism gasket sleeve	4071.50.030

Table 1: Assembly Common Parts (continued)

Description	Part No.
Prism keeper plate	4071.50.052
Seal, prism keeper plate	4071.50.041
Terminal block assembly w/o film disc cutout	44A6112-1

Table 2: ALSF Only Spare Components

Description	Part No.
Lamp, 105 W, 6.6 A	2990.40.900
Lamp holder assembly	1411.22.002
Lamp holder, left	44A6192-1
Lamp holder, right	44A6192-2
Prism	1428.00.300
Prism, green	1428.00.280
Prism, red	1428.00.270

Table 3: MALSR Only Spare Component

Description	Part No.
Filter, MALSR green	63A0963-1
Lamp, 62 W, 6.6 A	48A0386
Lamp, 105 W, 6.6 A	2990.40.900
Lamp holder assembly	1411.22.001
Prism	63A0993-3

Figure 3: F-Range High Intensity Style 2 Approach Light (44A6148)

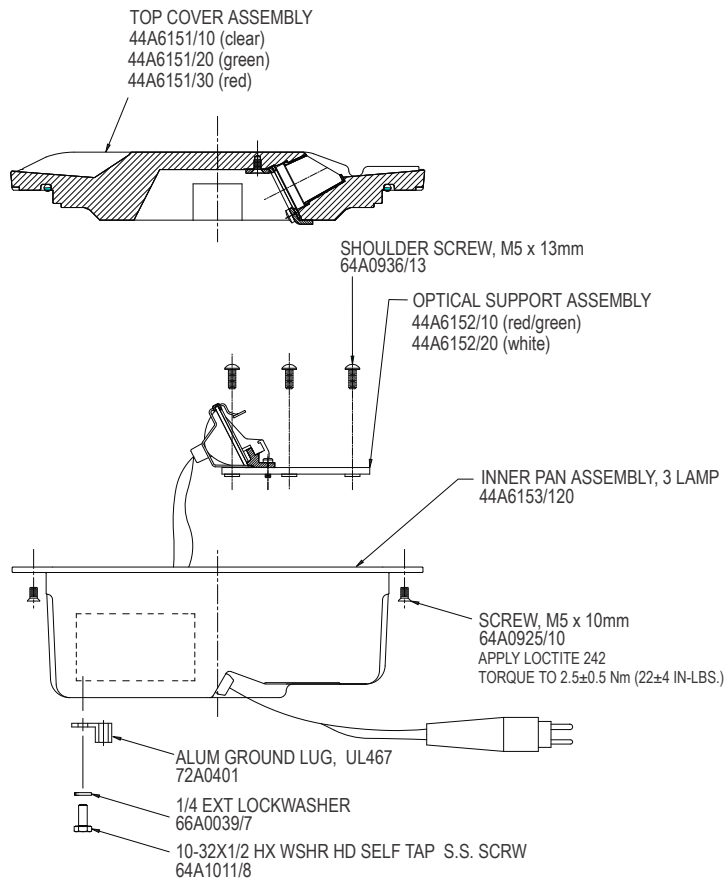
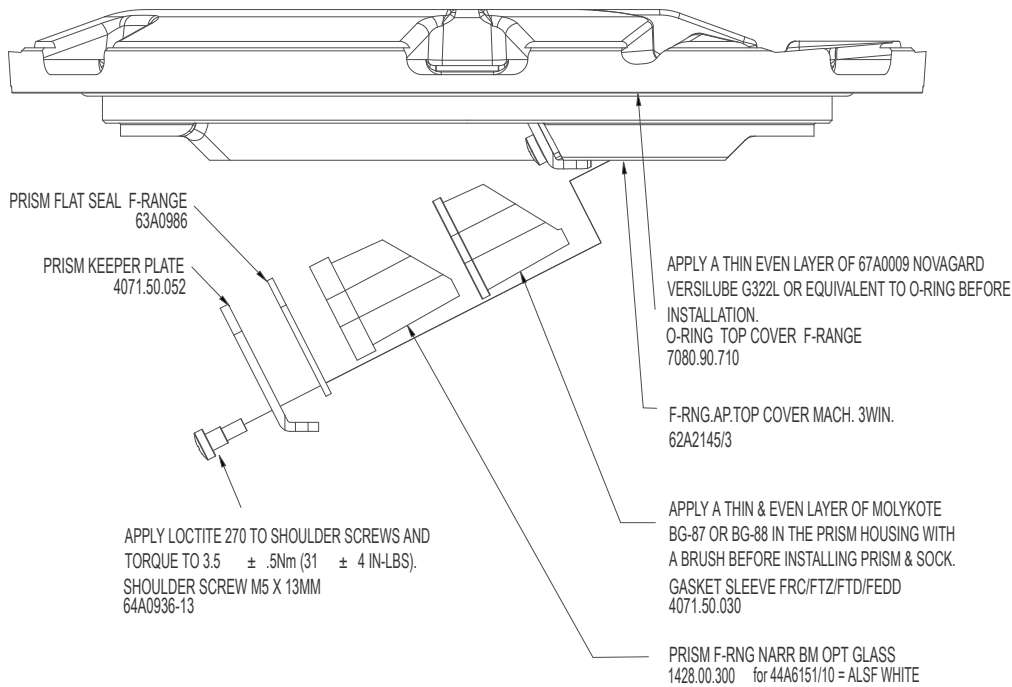


Figure 4: Top Cover 44A6151/XX1

44A6151/10 shown



CONFIG	ITEM 6 PART NUMBER	ITEM 6 PART DESCRIPTION
/10	1428.00.300	PRISM, COATED CLEAR
/20	1428.00.280	PRISM, COATED GREEN
/30	1428.00.270	PRISM, COATED RED
/11 /21	63A0993/3	PRISM, NARROW BEAM, COATED
/12	63A0993/2	PRISM F-RNG NARR BM OPT GLASS

44A6151/X X

- 20 = ALSF GREEN
- 30 = ALSF RED
- 11 = MALS R THRESHOLD 3 LAMP (GREEN)
- 21 = MALS R THRESHOLD 1 LAMP (WHITE)
- 12 = IRGL

USE 62A2145/1 TOP COVER

Figure 5: Optical Assembly 44A6152/XX

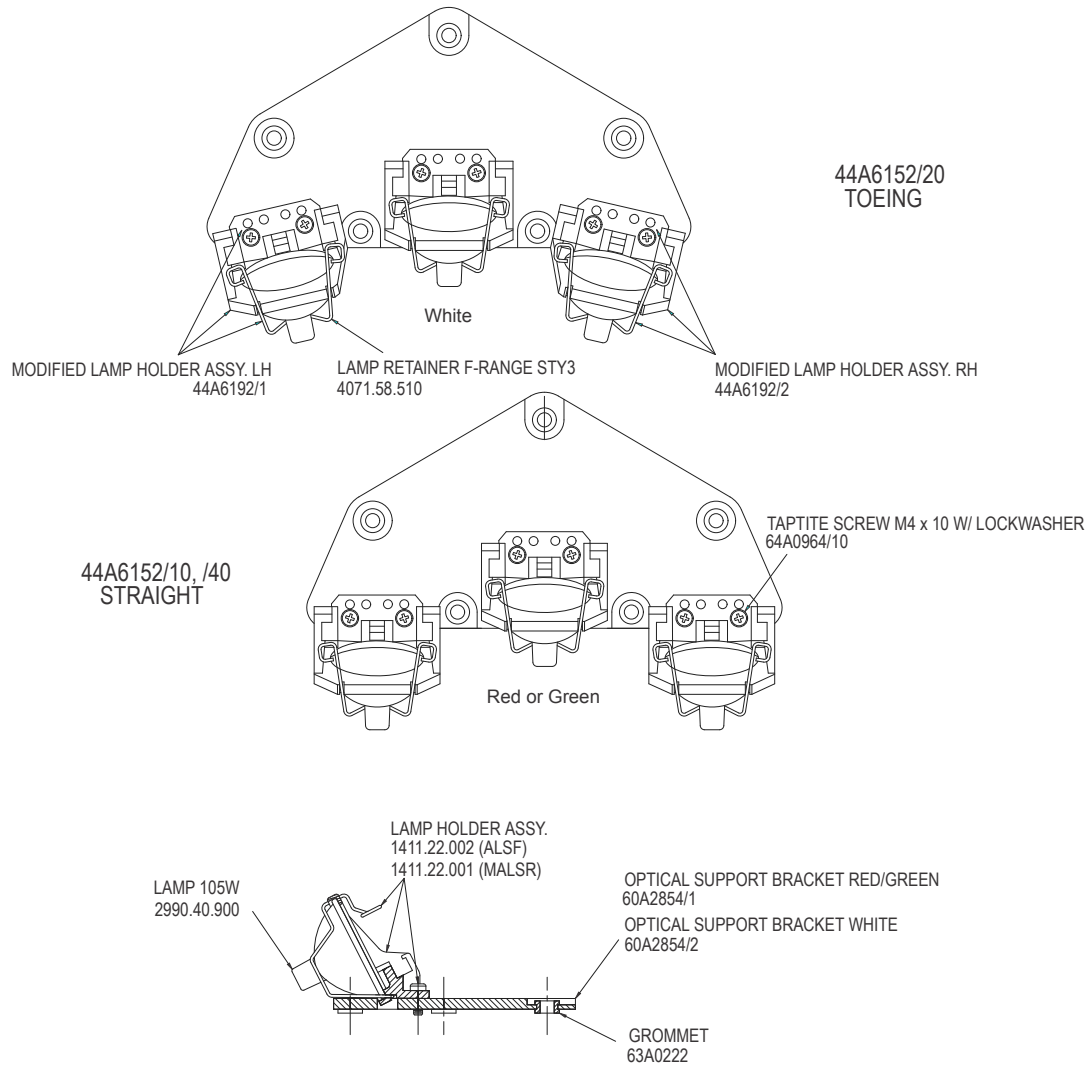
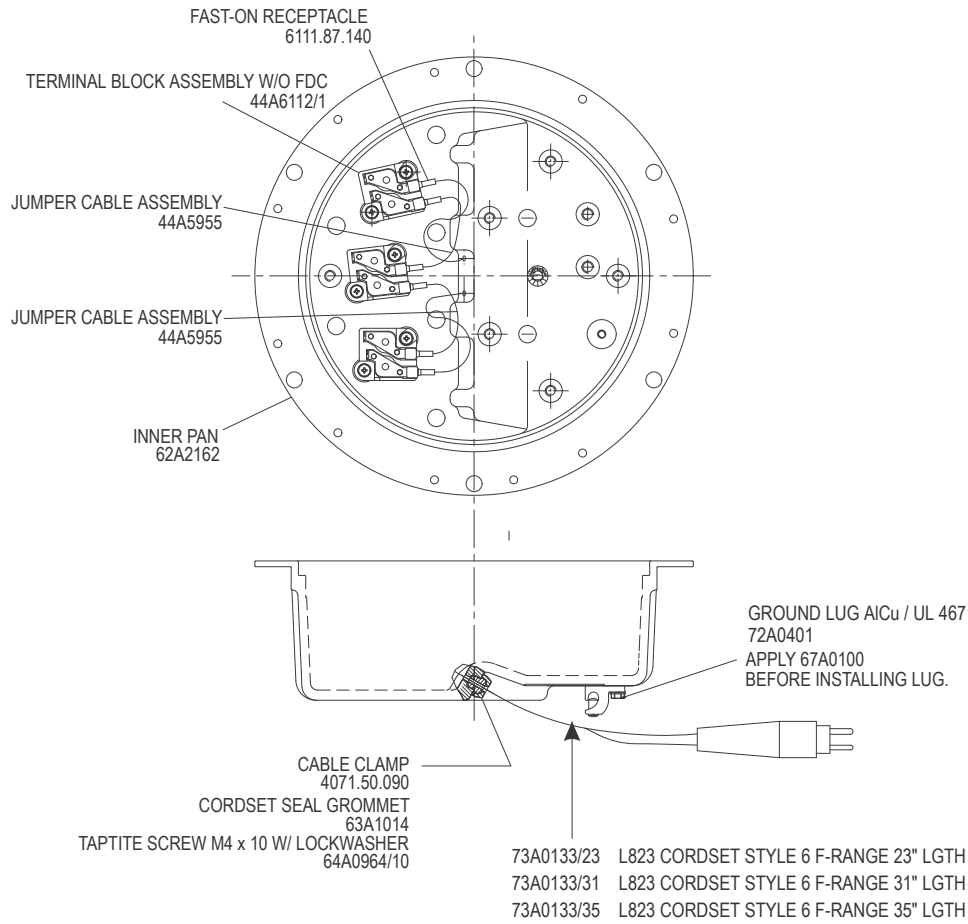


Figure 6: Bottom Cover



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

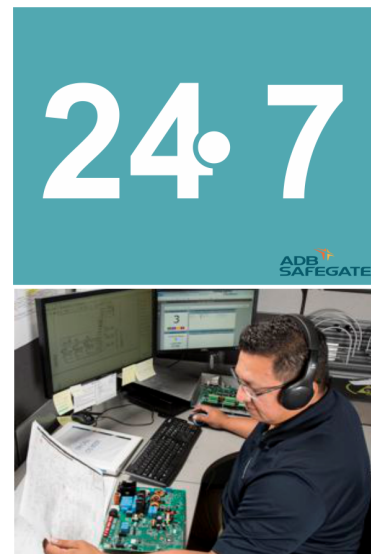
ADB SAFEGATE Americas Technical Service & Support (International): +1-614-861-1304

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

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