



LED REIL Runway End Identifier Light  
Voltage/Current, Style A/E

## Spare Parts

SP\_2086\_AE, Rev. A, 2020/09/03

  
**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 and purchased or funded with monies through the Airport Improvement Program (AIP) 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 Introduction



## WARNING

Read the instructions in their entirety before starting installation.

The LED REIL is a Runway End Identifier Light with LED array flashing light system that provides a visual indication of the runway threshold to pilots during an approach for landing. The system is composed of two sequenced flashers that operate simultaneously to produce short duration flashes twice a second. Each REIL assembly is composed of a single enclosure LED optical flash assembly integrated with a control cabinet.

The LED REIL system may be operated either by local or remote control. The REIL flash system (style A) operates at high intensity and (style E) operates at low/medium/high intensity. The system can be powered by a 120/240 Vac power supply or by a 6.6 A or 20 A series circuit.

The LED REIL systems electronic package housed in the control cabinet is the same for both REIL units with some minor variations due to style A/E and primary/secondary unit design.

**Figure 1: REIL ASSEMBLY**



## Note

The L-867 baseplate that the assembly is mounted on is not a part of the REIL assembly.

## 1.1 Runway End Identification Light

### Compliance with Standards

FAA:	L-849(L) Style A, C or E AC 150/5345-51 (Current Edition) and the FAA Engineering Brief No. 67. ETL Certified.
ICAO:	Annex 14, Vol. 1, para. 5.3.8

### Uses

LED REIL provides a visual indication to pilots of the runway threshold during an approach.

- L-849(L) Style A**
  - Unidirectional, high intensity / one brightness step
- L-849(L) Style C**
  - Unidirectional, low intensity, one brightness step
- L-849(L) Style E**
  - Unidirectional, three brightness steps

## Operating Conditions

Temperature:	-40 °F to +131 °F (-40 °C to +55 °C)
Humidity:	0 to 100% (including conditions where condensation takes place in the form of water or frost)
Altitude:	0 to 10,000 ft (3,000 m)
Wind:	Velocities up to 150 knots
Exposure:	Withstands windblown rain, sand, dust particles, and a salt-laden atmosphere

## Power Supply

The LED REIL system operates from a 240 VAC (2-wire) or 120/240 VAC (3-wire),  $\pm 10\%$ , 50/60 Hz power supply. The system can also operate from a series lighting circuit using a 6.6 A/6.6 A or 20 A/ 6.6 A L-830/L-831 isolation transformer at each unit.

### Maximum Power Requirements

Style	Each Unit	Total
Voltage-driven		
A/E	171 VA	342 VA
C	45 VA	90 VA
Current-driven		
A/E	108 VA <sup>1</sup>	216 VA <sup>2</sup>
C <sup>3</sup>	53 VA <sup>4</sup>	106 VA <sup>2</sup>
C <sup>5</sup>	86 VA <sup>6</sup>	172 VA <sup>2</sup>

### Notes

- <sup>1</sup> Use 200 W isolation transformer each unit
- <sup>2</sup> This is total CCR load and includes isolation transformer losses.
- <sup>3</sup> Without current sensing
- <sup>4</sup> Use 30/45 W isolation transformer each unit
- <sup>5</sup> With current sensing
- <sup>6</sup> Use 100 W isolation transformer each unit



## 2.0 REIL A/E Parts

To order parts, call ADB Safegate Customer Service or your local representative. Use the parts lists, and the accompanying illustration, to describe and locate parts correctly.

### Ordering Code

REIL / X X X X X 0 X X

#### Style

- A = High-intensity, one brightness step
- C = Low-intensity, one brightness step
- E = Three brightness steps

#### Input Power

- 1 = Current-driven<sup>1</sup>
- 2 = Voltage-driven

#### Current Sensing Option<sup>2</sup>

- 0 = Without current sensing<sup>3</sup>
- 1 = With current sensing

#### Flash Head Mounting

- 0 = Integrated with enclosure (Style A, C, or E)
- 1 = Separate mounting on a 2" EMT (Style C only)

#### Enclosure Mounting

- 1 = Single leg
- 2 = Two legs

#### 0

#### Enclosure Type

- 1 = Steel (Painted Aviation Orange)
- 2 = Stainless Steel (Not ETL Certified)

#### LED Configuration

- 0 = Style C
- 1 = Style A/E (48 LEDs)

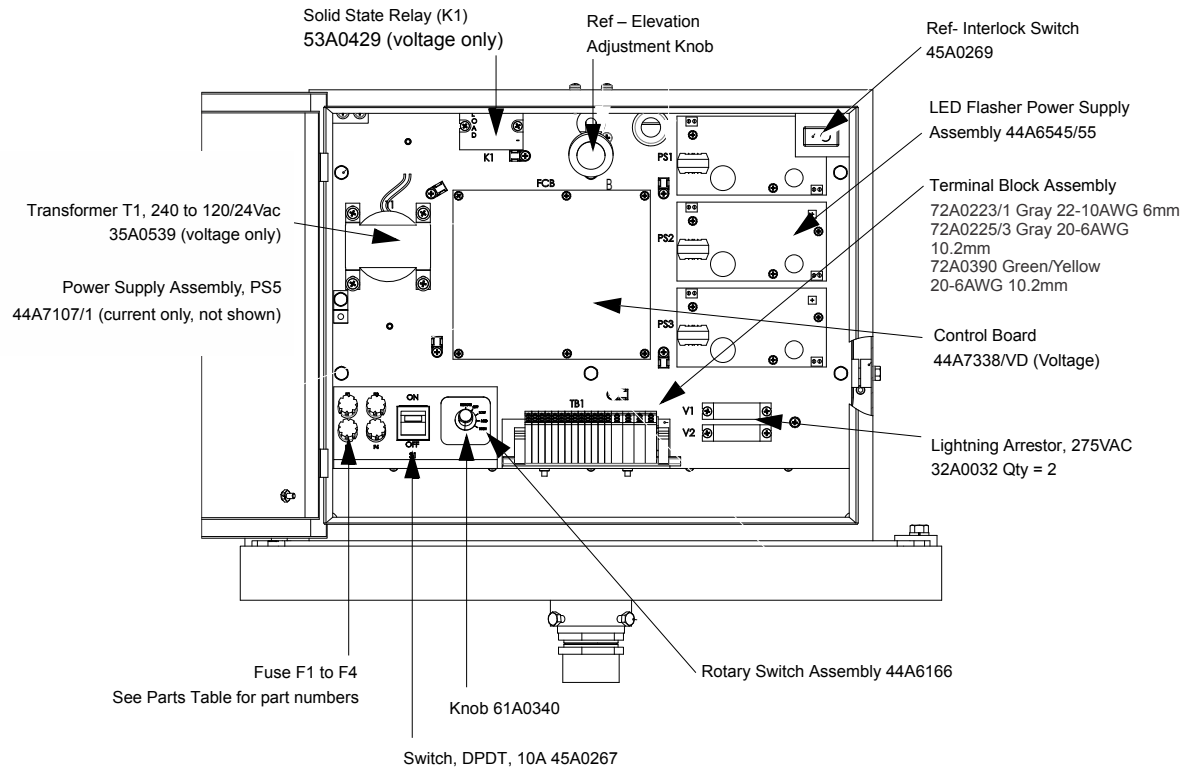
#### Note:

- <sup>1</sup> The current-driven REIL is only available with the current-sensing option. A current-driven REIL cannot be ordered without current sensing.
- <sup>2</sup> The current sensing option provides ON/OFF control for Style A, Style C or 3-step intensity control for Style E of the REIL system depending on the current level in the series lighting circuit. The current-driven (powered by a CCR) doesn't require a separate isolation transformer – The input current from the isolation transformer that powers the Primary cabinet is also used for current sensing control. The current sensing input of a voltage-driven REIL can be connected to 6.6 A or 20 A series circuits with an appropriate 6.6/6.6 A or 20/6.6 A isolation transformer.
- <sup>3</sup> The without current sensing option is only available with the voltage driven REIL.

## 2.1 Control Panel Assembly Part Numbers

The following main control panel components are identified below. See numerical parts list for detailed description of parts.

**Figure 2: Control Panel Assembly (single-leg, voltage shown)**

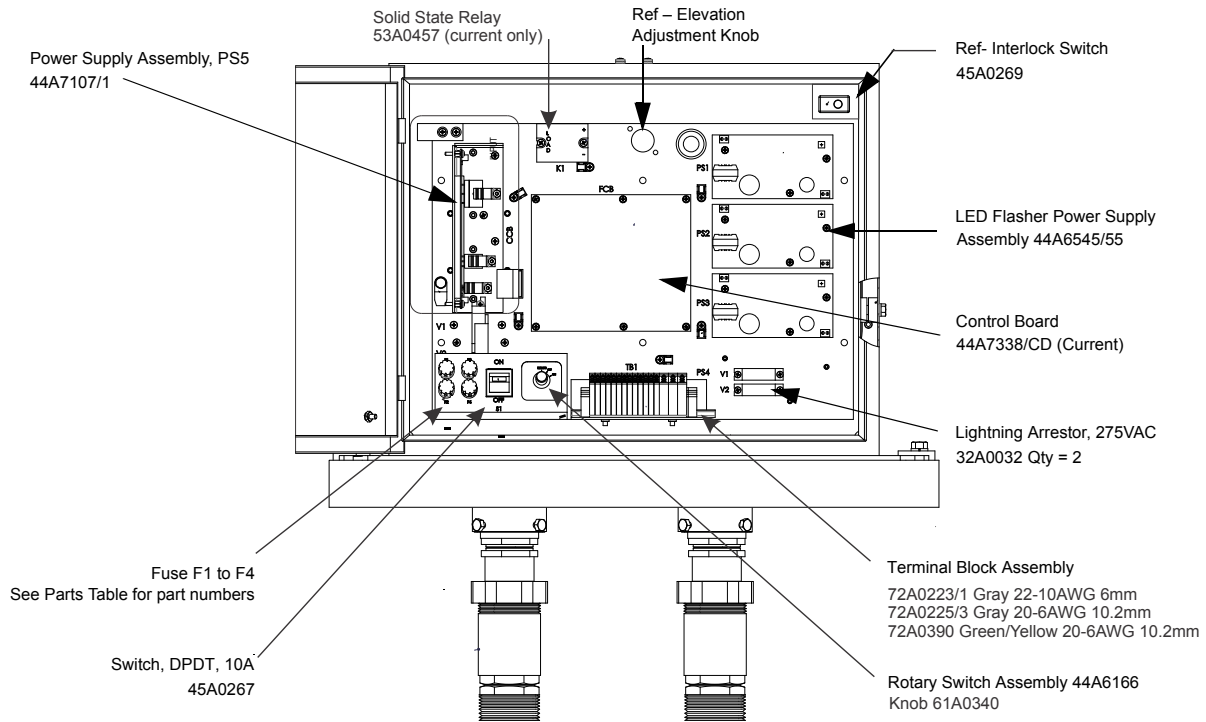


### Note

See the Numerical and Spare Parts List for part numbers for full description on each of the labeled parts.

The same control panel is used in each individual control cabinet.

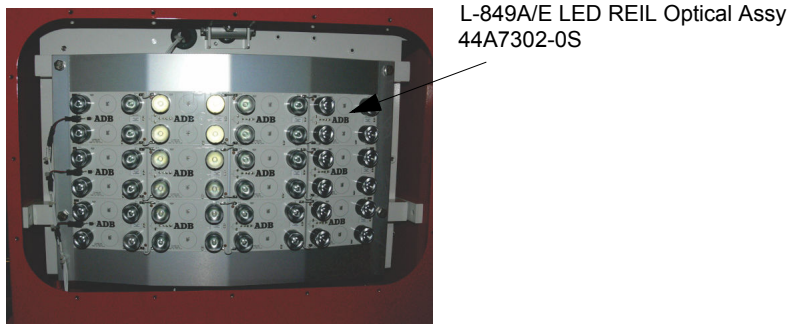
**Figure 3: Control Panel Assembly (dual-leg, current unit shown)**



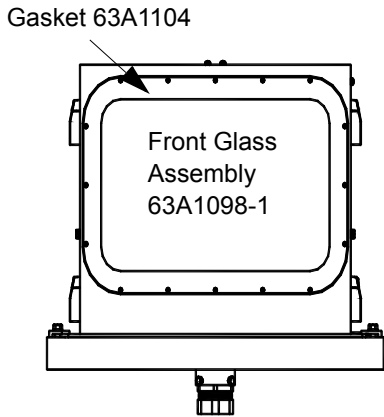
## 2.2 Optical Assembly Part Numbers

The main components of the optical assembly are identified below. See the numerical parts list for detailed description of parts.

**Figure 4: Optical Assembly Components**

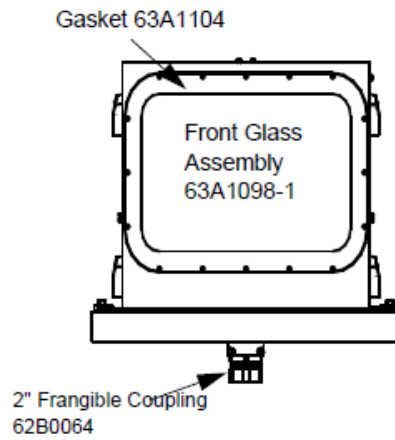
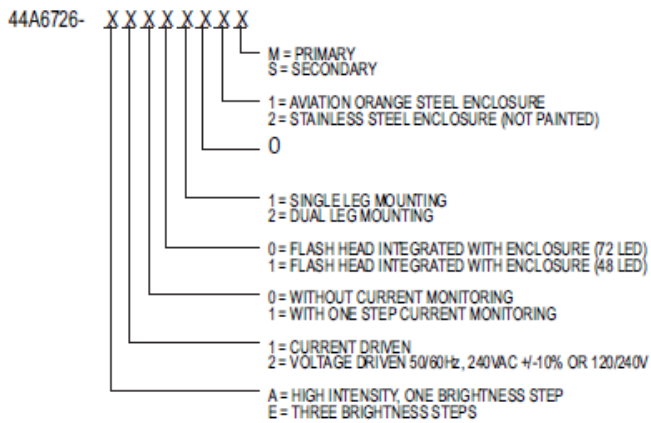


**Figure 5: Front Glass Assembly Components**



## 2.3 Current and Voltage Powered, Style A/E Assembly

**Figure 6: Front Glass Assembly – Single Leg Mounting Shown**



## 2.4 Spare Parts Lists

**Table 1: Current Powered LED REIL, Style A/E Spare Parts**

Part Number	Description	Quantity	Notes
32A0032	Lightning Arrestor 275Vac	4	
44A7338/CD	Control Board Assembly	2	Current Powered Only
44A6545/55	LED Flasher Power Supply Assembly	6	
44A7107/1	Power Supply Assembly, PS5	2	Current Powered Only
53A0457	Solid State Relay, 50-400Vac, 5-24Vdc	2	Current Powered Only
45A0269	Interlock Switch, Door, SPST, 10A	2	
62B0064	2-inch frangible coupling	2	Single Leg Only
77A0009	Compression Coupling, 2" EMT	4	Dual Leg Only
44B0180	Frangible Coupling, 2" EMT	4	Dual Leg Only
47A0026	Fuse, S1 Panel, F1 and F2, 10A, SB	4	Current Powered Only
47A0049	Fuse, S1 Panel, F3, 2A, SB	2	Current Powered Only

**Table 1: Current Powered LED REIL, Style A/E Spare Parts (continued)**

Part Number	Description	Quantity	Notes
47A0017	Fuse, S1 Panel, F4, 1A, SB	2	Current Powered Only
47A0017	Fuse, Control Board, F1, 1A, SB	2	
47A0215	Fuse, Flasher Power Supply Board, F1, 1A, SB	4	
44A7302/0S	Optical Assembly (includes gasket and mounting hardware)	1	
63A1098/1	Front Glass	1	
63A1104	Front Glass Gasket	1	

**Table 2: Voltage Powered LED REIL, Style A/E Spare Parts**

Part Number	Description	Quantity	Notes
32A0032	Lightning Arrestor 275Vac	4	
44A7338/VD	Control Board Assembly	2	Voltage Powered Only
44A6545/55	LED Flasher Power Supply Assembly	6	
62B0064	2-inch frangible coupling	2	Single Leg Only
77A0009	Compression Coupling, 2" EMT	4	Dual Leg Only
44B0180	Frangible Coupling, 2" EMT	4	Dual Leg Only
45A0269	Interlock Switch, Door, SPST, 10A	2	
47A0017	Fuse, S1 Panel, F4, 1A, SB	2	Voltage Powered Only
47A0078	Fuse, S1 Panel, F1 and F2, 4A, SB	4	Voltage Powered Only
47A0004	Fuse, S1 Panel, F3, 2A, SB	2	Voltage Powered Only
47A0017	Fuse, Control Board, F1, 1A, SB	2	
47A0215	Fuse, Flasher Power Supply Board, F1, 1A, SB	4	
53A0429	Solid State Relay 24-250Vac, 5-24Vdc	1	Voltage Powered Only
35A0539	Transformer 240/347/480-120/24CT 0.5 A	1	Voltage Powered Only
44A7302/0S	Optical Assembly (includes gasket and mounting hardware)	1	
63A1098/1	Front Glass	1	
63A1104	Front Glass Gasket	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**

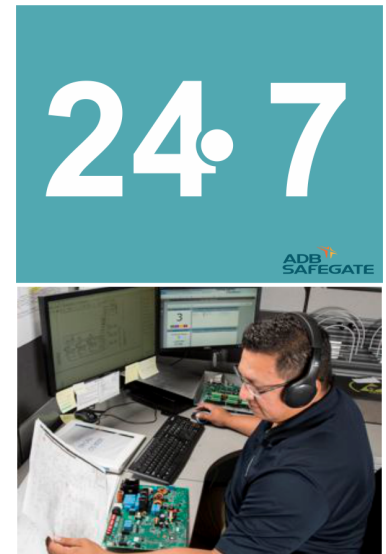
**ADB SAFEGATE Americas Technical Service & Support (International): +1-614-861-1304**

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](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 labeled 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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## Powering Your Airport Performance from Approach to Departure

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