



L-861SE Clamp Band ERTE

Incandescent Elevated Runway Threshold/End Light, Medium-Intensity, Clamp Band

User Manual

96A0193, Rev. L, 2025/02/19



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 C22.2 No.180:13 (R2018) regulations. The CSA directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

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Note

See your applicable sales agreement for a complete warranty description.

Replaced or repaired equipment under warranty falls into the warranty of the original delivery. No new warranty period is started for these replaced or repaired products.

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Note

See your sales order contract for a complete warranty description.

Replaced or repaired equipment under warranty falls into the warranty of the original delivery. No new warranty period is started for these replaced or repaired products.

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.

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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 Safety

Introduction to Safety







This section contains general safety instructions for installing and using ADB SAFEGATE equipment. Some safety instructions may not apply to the equipment in this manual. Task- and equipment-specific warnings are included in other sections of this manual where appropriate.

1.1 Safety Messages


HAZARD Icons used in the manual

For all HAZARD symbols in use, see the Safety section. All symbols must comply with ISO and ANSI standards.

Carefully read and observe all safety instructions in this manual, which alert you to safety hazards and conditions that may result in personal injury, death or property and equipment damage and are accompanied by the symbol shown below.

	<p>WARNING</p> <p>Failure to observe a warning may result in personal injury, death or equipment damage.</p>
	<p>DANGER – Risk of electrical shock or ARC FLASH</p> <p>Disconnect equipment from line voltage. Failure to observe this warning may result in personal injury, death, or equipment damage. ARC Flash may cause blindness, severe burns or death.</p>
	<p>WARNING – Wear personal protective equipment</p> <p>Failure to observe may result in serious injury.</p>
	<p>WARNING – Do not touch</p> <p>Failure to observe this warning may result in personal injury, death, or equipment damage.</p>
	<p>CAUTION</p> <p>Failure to observe a caution may result in equipment damage.</p>
	<p>ELECTROSTATIC SENSITIVE DEVICES</p> <p>This equipment may contain electrostatic devices.</p>

Qualified Personnel

	<p>Important Information</p> <p>The term qualified personnel is defined here as individuals who thoroughly understand the equipment and its safe operation, maintenance and repair. Qualified personnel are physically capable of performing the required tasks, familiar with all relevant safety rules and regulations and have been trained to safely install, operate, maintain and repair the equipment. It is the responsibility of the company operating this equipment to ensure that its personnel meet these requirements.</p> <p>Always use required personal protective equipment (PPE) and follow safe electrical work practice.</p>
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1.1.1 Introduction to Safety



CAUTION

Unsafe Equipment Use

This equipment may contain electrostatic devices, hazardous voltages and sharp edges on components

- Read installation instructions in their entirety before starting installation.
- Become familiar with the general safety instructions in this section of the manual before installing, operating, maintaining or repairing this equipment.
- Read and carefully follow the instructions throughout this manual for performing specific tasks and working with specific equipment.
- Make this manual available to personnel installing, operating, maintaining or repairing this equipment.
- Follow all applicable safety procedures required by your company, industry standards and government or other regulatory agencies.
- Install all electrical connections to local code.
- Use only electrical wire of sufficient gauge and insulation to handle the rated current demand. All wiring must meet local codes.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Protect components from damage, wear, and harsh environment conditions.
- Allow ample room for maintenance, panel accessibility, and cover removal.
- Protect equipment with safety devices as specified by applicable safety regulations
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning prior to returning power to the circuit.

Failure to follow this instruction can result in serious injury or equipment damage

Additional Reference Materials



Important Information

- IEC – International Standards and Conformity Assessment for all electrical, electronic and related technologies.
- IEC 60364 – Electrical Installations in Buildings.
- CSA – C22.2 No.180:13 (R2018), series isolating transformers for airport lighting.
- FAA Advisory: AC 150/5340-26 (current edition), Maintenance of Airport Visual Aid Facilities.
- Maintenance personnel must refer to the maintenance procedure described in the ICAO Airport Services Manual, Part 9.
- ANSI/NFPA 79, Electrical Standards for Metalworking Machine Tools.
- National and local electrical codes and standards.

1.1.2 Intended Use



CAUTION

Use this equipment as intended by the manufacturer

This equipment is designed to perform a specific function, do not use this equipment for other purposes

- Using this equipment in ways other than described in this manual may result in personal injury, death or property and equipment damage. Use this equipment only as described in this manual.

Failure to follow this instruction can result in serious injury or equipment damage

1.1.3 Material Handling Precautions: Storage



CAUTION

Improper Storage

Store this equipment properly

- If equipment is to be stored prior to installation, it must be protected from the weather and kept free of condensation and dust.

Failure to follow this instruction can result in equipment damage

1.1.4 Maintenance Safety



DANGER

ELECTRIC SHOCK HAZARD

THIS EQUIPMENT MAY CONTAIN ELECTROSTATIC DEVICES

- DO NOT OPERATE A SYSTEM THAT CONTAINS MALFUNCTIONING COMPONENTS. IF A COMPONENT MALFUNCTIONS, TURN THE SYSTEM OFF IMMEDIATELY.
- DISCONNECT AND LOCK OUT ELECTRICAL POWER.
- ALLOW ONLY QUALIFIED PERSONNEL TO MAKE REPAIRS. REPAIR OR REPLACE THE MALFUNCTIONING COMPONENT ACCORDING TO INSTRUCTIONS PROVIDED IN ITS MANUAL.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN DEATH OR EQUIPMENT DAMAGE

1.1.5 Material Handling Precautions, ESD



CAUTION

Electrostatic Sensitive Devices

This equipment may contain electrostatic devices

- Protect from electrostatic discharge.
- Electronic modules and components should be touched only when this is unavoidable e.g. soldering, replacement.
- Before touching any component of the cabinet you shall bring your body to the same potential as the cabinet by touching a conductive earthed part of the cabinet.
- Electronic modules or components must not be brought in contact with highly insulating materials such as plastic sheets, synthetic fiber clothing. They must be laid down on conductive surfaces.
- The tip of the soldering iron must be grounded.
- Electronic modules and components must be stored and transported in conductive packing.

Failure to follow this instruction can result in equipment damage

1.1.6 Arc Flash and Electric Shock Hazard



DANGER

SERIES CIRCUITS HAVE HAZARDOUS VOLTAGES

THIS EQUIPMENT PRODUCES HIGH VOLTAGES TO MAINTAIN THE SPECIFIED CURRENT - DO NOT DISCONNECT WHILE ENERGIZED.

- ALLOW ONLY QUALIFIED PERSONNEL TO PERFORM MAINTENANCE, TROUBLESHOOTING, AND REPAIR TASKS.
- ONLY PERSONS WHO ARE PROPERLY TRAINED AND FAMILIAR WITH ADB SAFEGATE EQUIPMENT ARE PERMITTED TO SERVICE THIS EQUIPMENT.
- AN OPEN AIRFIELD CURRENT CIRCUIT IS CAPABLE OF GENERATING >5000 VAC AND MAY APPEAR OFF TO A METER.
- NEVER UNPLUG A DEVICE FROM A CONSTANT CURRENT CIRCUIT WHILE IT IS OPERATING; ARC FLASH MAY RESULT.
- DISCONNECT AND LOCK OUT ELECTRICAL POWER.
- ALWAYS USE SAFETY DEVICES WHEN WORKING ON THIS EQUIPMENT.
- FOLLOW THE RECOMMENDED MAINTENANCE PROCEDURES IN THE PRODUCT MANUALS.
- DO NOT SERVICE OR ADJUST ANY EQUIPMENT UNLESS ANOTHER PERSON TRAINED IN FIRST AID AND CPR IS PRESENT.
- CONNECT ALL DISCONNECTED EQUIPMENT GROUND CABLES AND WIRES AFTER SERVICING EQUIPMENT. GROUND ALL CONDUCTIVE EQUIPMENT.
- USE ONLY APPROVED ADB SAFEGATE REPLACEMENT PARTS. USING UNAPPROVED PARTS OR MAKING UNAPPROVED MODIFICATIONS TO EQUIPMENT MAY VOID AGENCY APPROVALS AND CREATE SAFETY HAZARDS.
- CHECK THE INTERLOCK SYSTEMS PERIODICALLY TO ENSURE THEIR EFFECTIVENESS.
- DO NOT ATTEMPT TO SERVICE ELECTRICAL EQUIPMENT IF STANDING WATER IS PRESENT. USE CAUTION WHEN SERVICING ELECTRICAL EQUIPMENT IN A HIGH-HUMIDITY ENVIRONMENT.
- USE TOOLS WITH INSULATED HANDLES WHEN WORKING WITH AIRFIELD ELECTRICAL EQUIPMENT.

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN DEATH OR EQUIPMENT DAMAGE

2.0 L-861SE Clamp Band ERTE

Incandescent Elevated Runway, Medium-Intensity, Clamp Band Threshold/End Light.

The ERTE is used to indicate a runway threshold/end. The light fixture is built to withstand jet blast while having a lamp life of 500 hours at 6.6A. The top casting holds the outer globe, which is indexed to the fixture and held in place by a continuous clamping band.

2.1 About this manual

2.2 Introduction

Provides the purpose, scope, and applicability of the technical manual.

The manual shows the information necessary to:

- Example: Install and maintain said equipment.

2.3 How to work with the manual

1. Become familiar with the structure and content.
2. Carry out the actions completely and in the given sequence.

3.0 Product Introduction

This section describes the L-861SE threshold/end light. The L-861SE threshold/end light is used to delineate the threshold/end of non-precision IFR runways.



The L-861SE light fixture consists of the following:

- A pair of inner lens doublets (3) coupled with a clear outer globe (1)
- Continuous clamping band (4)
- Inner spring clip (2) to hold two 180-degree inner lens segments
- Frangible coupling (7) that threads into a 1-1/2 12 NPT tapped hole in either a 30-inch (762-mm) stake assembly or a 12-inch-diameter L-867 base cover plate.

The cast aluminum head and base assembly can be mounted on a standard L-867 base plate or on a steel stake. Base mounting is easier to maintain and provides added protection for the equipment. Stake-mounted lights require transformers, cables, and connectors that are designed for direct earth burial. Refer to [Table 1](#) for mounting heights.



Note

The measurements in [Table 1](#) are taken from the grade to the top of the light fixture.

Table 1: Mounting Heights

Type	Height (in.)	Height (mm)
Standard (FAA minimum)	14	355.6
Standard	24	610
Standard (FAA maximum)	29	736.6

The L-861SE light fixture is available with bidirectional white/red, white/green, red/green, red/red, green/green, green/yellow lenses.

3.1 Incandescent Elevated Runway Threshold/End Light

Uses

FAA L-861SE

- Runway threshold/end
- Non-precision IFR runways

Features

- Top casting holds the outer globe, which is indexed to the fixture and held in place by a continuous clamping band. Two prismatic inner lens segments are mounted inside on the socket mounting plate assembly.
- Light fixture is designed to withstand jet blast.
- Lamp Life: Rated at 500-1000 hours at 6.6 A. 1,000 hour rating valid on 110W lamp only.
- Four screws allow a 4° leveling adjustment of the fixture after installation.
- Fixture uses aluminum castings, stainless steel hardware, and is protected with aviation yellow gloss enamel paint.

Operating Conditions

Temperature	-40 °F to +131 °F / -40 °C to +55 °C
Wind	Withstands wind velocities up to 300 mph / 480 kph

Packaging

Assembled Fixtures	Dimensions of Cartons - in (cm)		Indiv. Weight
	Individual	8 Per Box	
14-inch OAH	6.5 × 6.5 × 20.5	15.5 × 23.5 × 19.5	5 lb
	(17 × 17 × 52)	(39.5 × 60 × 50)	2.3 kg
24-inch OAH	6.5 × 6.5 × 31	19.5 × 19.5 × 29	6.25 lb
	(17 × 17 × 79)	(50 × 50 × 74)	2.8 kg
30-inch OAH	6.5 × 6.5 × 37	19.5 × 19.5 × 35.5	7 lb
	(17 × 17 × 94)	(50 × 50 × 90)	3.2 kg

3.2 Equipment and Accessories Supplied

Refer to [Table 3](#) for required equipment that is supplied.

Table 2: Required Equipment Supplied

Description	Quantity
L-861SE light fixture (includes lamp, frangible coupling, and L-823 cordset)	1
Instruction manual	1 per order

3.3 Equipment Required But Not Supplied

Refer to [Table 4](#) for required equipment that is not supplied. Refer to the *Parts* section for part numbers.

Table 3: Required Equipment Not Supplied

Description	Quantity
Torque wrench, 0?200 in-lb with 3/8 socket	1
Screwdriver, #2 Phillips	1
L-867 base, 12 or 16-inches in diameter. Used only when base mounted.	1
Stake assembly (30-inch galvanized steel). Used only when stake mounted.	1
L-830 isolation transformer for series circuit.	1

Table 3: Required Equipment Not Supplied

Description	Quantity
Single conductor (primary) connector kit	1
Two-conductor (secondary) plug connector kit	1
Two-conductor (secondary) receptacle connector kit	1
Loctite Grade AV or equivalent	As required

4.0 Installation Introduction

This section provides instructions for installing the L-861SE threshold/end light fixture. Refer to the airport project plans and specifications for the specific installation instructions.

4.1 Inspection on Arrival

Inspect each light on arrival, note any damage and report to the carrier and your ADB representative.

4.1.1 Storage

The proper storage of the ERTE on a shelf is to leave it in the box it arrived in or place in a bin with a protective wrap to protect the glass from damage.

4.1.2 Unpacking and Material Inspection

The equipment is shipped ready for installation. Handle equipment very carefully to prevent component damage. Unpack the carton upon receipt and check the contents and their condition. Note any exterior damage to the carton that might lead to detection of equipment damage.

If you note any damage to any equipment, file a claim with the carrier immediately. The carrier may need to inspect the equipment.

4.1.3 Installation Procedures

This subsection describes procedures for assembling the L-861SE light fixture.



Note

Check the packing list with the parts list to verify that all parts are present before proceeding. Refer to the [Parts](#) section.

To assemble the parts, perform the following procedure:

1. See [Figure 1](#). Place the L-823 cordset into the column (8).
2. See [Figure 1](#). Insert the column (8) into the end of the lower casting of the head assembly (11). Secure the head to the column by tightening the Phillips head screws (7). Apply Loctite to the Phillips head screws (7) and hex head screws (10).
3. Insert the end of the column into the frangible coupling (9) and secure by tightening the hex head screw (10).



CAUTION

- Do not install lamp, inner lenses, and lens assembly until you have mounted the fixture on a stake or base plate for the L-867 base. If you do not mount the fixture first, you may twist the cordset off the socket or break the socket prongs. Refer to Base Mounting and Stake Mounting in this section.

4. Insert the lamp (5) into the socket (14). Refer to the Repair section.



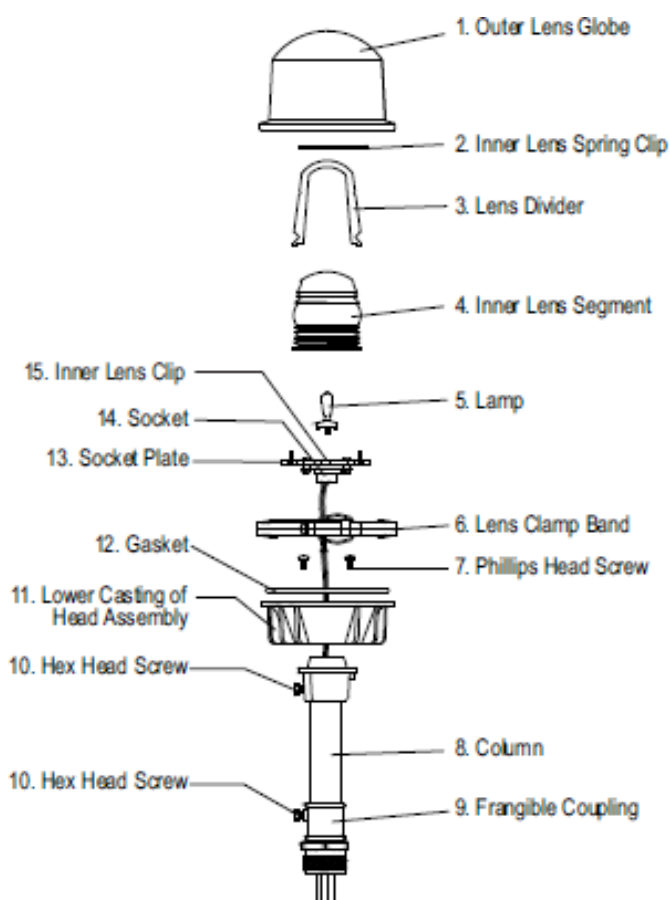
CAUTION

- Touching quartz lamps with bare fingers may seriously shorten lamp life. If the lamp is accidentally touched with bare fingers, clean with a tissue moistened with isopropyl alcohol.

5. Install the inner lens segments (4) using the lens divider (3) and inner spring clip (2) against the socket plate (13).

6. Place the outer globe (1) on the base and secure by tightening the lens clamp band (6).

Figure 1: L-861SE Light Fixture Assembly



4.2 Installation

This subsection provides installation instructions for the L-861SE light fixture.

4.2.1 Placement

The L-861SE light fixtures are located 2 to 10 feet (0.6 to 3 m) from the edge of the full strength pavement runway and in a straight line on each side of the runway. The fixtures are spaced longitudinally not more than 200 feet (61 m) apart on a line such that the light units on opposite sides of the runway are perpendicular to the runway centerline.

4.2.2 Base Mounting

See [Figure 3](#). The L-861SE light fixtures can be mounted on an L-867 base (2) mated with a base plate (1) with a diameter and bolt-hole circle corresponding to either a 12-inch or 16-inch L-867 base. The base plate has a female thread to receive a frangible coupling. A gasket is used with the base plate to form a watertight seal between the base plate and the L-867 base.

To install the L-867 base, perform the following procedure:

1. Install the L-867 base on undisturbed soil. If the soil is unsuitable, remove soil to an adequate depth and replace with compacted acceptable material.



Note

In closed duct systems, install in soil conditions with good drainage. Use light bases having a drain hole to prevent water accumulation.

2. Orient the cable entrance hubs of the base in the proper directions.

3. Level the light base so that the mounting flange surface is level with the finished grade.
4. With the base at the proper orientation and held at proper elevation, place approximately 4 inches (10.16 cm) of concrete backfill (7) around the outside base.

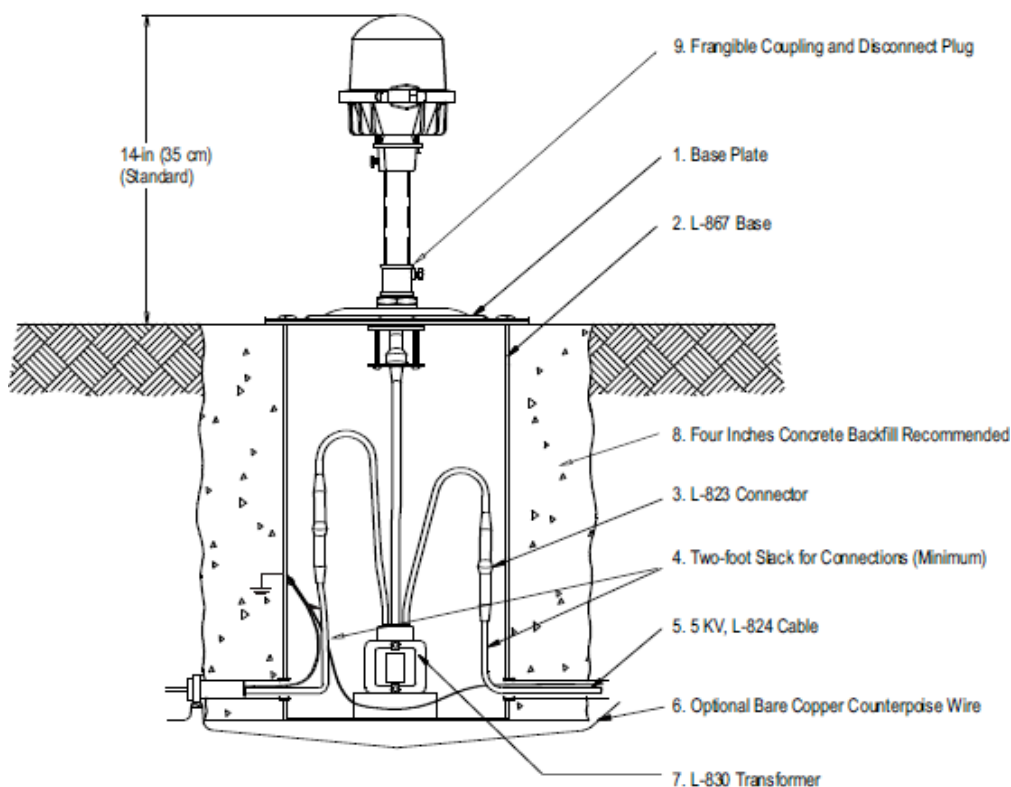


Note

If the concrete backfill is omitted, the earth backfill must be compacted to maintain proper elevation and orientation of the base.

5. Slope the top of the concrete away from the flange portion of the base so the sloped outer edges of the concrete are at surface grade.

Figure 2: Base Mounting



4.2.3 Light Fixture Mounting

To install the light fixture on the base, perform the following procedure:

1. See [Figure 3](#). Connect the primary power line to the appropriate isolation transformer. Refer to [Table 4](#) for the appropriate isolation transformer.



Note

Use a brick to raise the isolation transformer so that it is about 3 inches (76.2 mm) above the bottom surface of the L-867 base (2) to avoid the possibility of the transformer being partially immersed in water in case water accumulates under the level of the ducts or pipes.

2. After you have connected the transformer, check the continuity of the series loop.
3. Wrap the connector joints in the primary circuit with at least one layer of rubber or synthetic rubber tape and one layer of plastic tape one-half lapped, extending at least 1-1/2 inches (3.81 mm) on each side of the joint.
4. Clamp the female secondary plug from the L-830 transformer to the L-867 base plate fitting.
5. Bolt the base plate (1) with the base plate gasket to the L-867 base using six 3/8 16 stainless steel bolts. Apply a drop of Loctite Grade AV to each bolt thread and use a torque wrench to torque bolts to 100 inch-pounds (11.3 Nt-m).

6. Connect the male L-823 plug (3) from the light fixture to the female transformer plug on the secondary lead of the L-830 transformer.
 7. See [Figure 1](#). Loosen the frangible coupling screw (10) holding the coupling (9) to the light fixture column (8). Screw the coupling into the female thread on the base plate.
-



Note

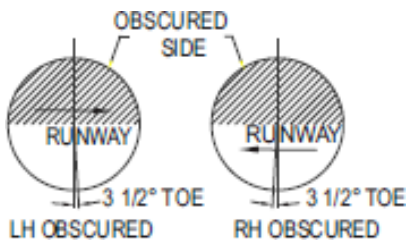
Apply anti-seize compound to the coupling threads to improve coupling removal and prevent thread corrosion.

8. Install the column with light fixture attached on the frangible coupling and tighten the coupling screw. Refer to Assembly Instructions in this section.
 9. Remove the outer globe (1), if installed. Place a level (such as a circle bubble level) on top of the head assembly and level the light fixture by adjusting the four Phillips head screws (7) in the lower casting (11).
 10. See [Figure 4](#). Place the outer globe on the fixture, and check for outer globe and inner lens direction.
-



Note

To verify that the lens is oriented correctly, the arrows on top of the lens must point to the runway side. Arrows should point toward the runway when the fixture is installed parallel with the runway or when the fixtures are installed perpendicular to the runway to mark a displaced threshold. When fixtures are located at the end of the runway, the arrows should point to the imaginary extension of the runway centerline. Always make sure that the colored lens location is in compliance with the airport project plans and specifications.



4.2.4 Stake Mounting

This section describes procedures for assembling and mounting the stake.

4.2.5 Stake Assembly

To assemble the stake, perform the following procedure:

1. See [Figure 6](#). Attach the stake hub (2) to the metal stake (5) using two 3/8 16 x 3/4-in. hex head screws (3) and 3/8-in. lockwashers (4).

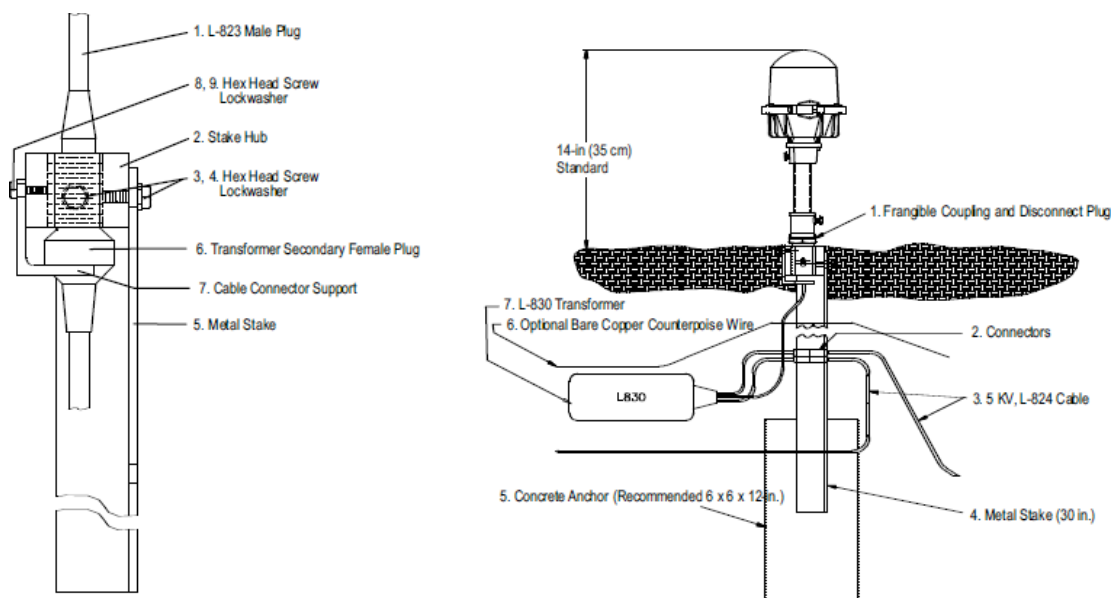
- Insert female L-823 secondary connector in cable connector support's forked tine and attach the cable connector support (7) to the stake hub (2) using 1/4 20 x 3/4-in. hex head screw (8) and 1/4-in. split lockwasher (9).



Note

The small hole at the lower end of the stake is provided for counterpoise wire connection.

Figure 3: Stake Mounting



4.2.6 Stake Installation

The light fixture is mated with a 30-inch (762-mm) steel stake with a fitting attached at the top to receive the male thread of the frangible coupling. Stake mounting requires transformers, cables, and connectors that are designed for direct earth burial.

To install a stake, perform the following procedure:

- See Figure 7. Install the stake (4) in 6-inch (152.4-mm) diameter holes at a depth of 30 inches (762 mm) so that the mounting hub of the stake is level.



CAUTION

- Do not drive stakes. Driving a stake may damage the stake and cause light fixture misalignment. Refer to FAA specification AC 150/5340-24.

- Make electrical connections as required and backfill around the stake with thoroughly compacted earth that has passed through a 1-inch (25.4-mm) sieve.



Note

Backfill with concrete in case of unstable soil conditions.

- Install the top of the stake even with ground level and maintain within 1 degree of the vertical.



Note

In areas where frost may cause heaving, anchor the stake with concrete and use a permeable backfill material such as sand around the buried electrical components. Cover the top surface with an impervious material to reduce moisture penetration.

4. Insert the male L-823 plug from the light fixture into the secondary receptacle of the transformer, and install the light fixture on the stake. Refer to Assembly Instructions in this section for light fixture assembly procedures.
-



CAUTION

- When installing the light fixture on the stake, avoid twisting wires. Twisting wires may damage wire connections, create a fire hazard, and adversely affect equipment performance.
-

5. See [Figure 2](#) . Remove the outer globe (1), if installed. Place a level (such as a circle bubble level) on top of the head assembly and level the light fixture by adjusting the four Phillips head screws (7) in the lower casting (11).
 6. See [Figure 4](#) . Place the outer globe on the fixture, and check for outer globe and inner lens direction.
-



Note

To verify that the lens is oriented correctly, the arrows on top of the lens must point to the runway side. Arrows should point toward the runway when the fixture is installed parallel with the runway or when the fixtures are installed perpendicular to the runway to mark a displaced threshold. When fixtures are located at the end of the runway, the arrows should point to the imaginary extension of the runway centerline. Always make sure that the colored lens location is in compliance with the airport project plans and specifications.

5.0 Maintenance

5.1 Periodic Maintenance Schedule

To keep L-861SE threshold/end light fixtures operating efficiently, follow a preventive maintenance schedule. Refer to [Table 7](#). Refer to FAA AC 150/5340-26 for more detailed information.

Table 4: L-861SE Threshold/End Light Fixture Maintenance

Interval	Maintenance Task	Action	Refer to:
Daily	Check for burned out lamp.	After turning off power, replace burned-out lamps. Refer to the Repair section.	
	Check for dim lamp.	After turning off power, replace burned-out lamps. Refer to the Repair section. After turning off power, check isolation transformer on series circuit.	
	Check for broken lens.	Replace lens.	“Maintenance Procedures”
Weekly	Check for vegetation.	Remove vegetation. Use weed killer.	
	Check for dirty lens.	Clean with glass cleaner.	
Monthly	Check for misaligned fixture.	Straighten, level, and align.	
	Check for dirty lamp socket.	After turning off power, clean lamp socket.	“Maintenance Procedures”
	Check for dirty frangible coupling weep holes (stake- mounted fixtures only).	Clean frangible coupling weep holes.	
	Check for dirt on fixture drain holes.	Clean drain holes.	
Semiannually	Check for improper ground elevation.	Grade so frangible point is level with ground elevation.	
	Check for improper light elevation.	Maintain the same elevation for all light fixtures.	
	Check for moisture present in light housing or base.	Check drain holes and clamps. Check lens for cracks. If damaged, replace. Use water pump to remove water from the base.	
	Check for corrosion or loose or chipped paint.	Scrape and repaint.	
Annually	Check for cracks, corrosion, and shorts.	Repair or replace.	“Maintenance Procedures”
	Check for dirty contacts.	After turning off power, clean contacts.	“Maintenance Procedures”
	Check for loose wire connections.	Tighten wire connections.	
Unscheduled	Make prediction of heavy snowfall, if necessary.	Use red flags or sticks to mark the location of fixtures to facilitate snow removal and lessen the chance of damage to fixtures by snow removal equipment.	

5.2 Maintenance Procedures

This section provides instructions for replacing lamps for the L-861SE threshold/end light fixture.



WARNING

De-energize the circuit and lock out the circuit or regulator so that the circuit cannot be energized by remote means before attempting to service the fixture.

- Failure to observe a warning may result in personal injury, death or equipment damage.

To replace a lamp, perform the following procedure:

1. See [Figure 4](#). Remove the outer globe (H2) from the fixture by loosening the clamp band holding the lens to the base.
2. Remove the two inner lens segments (H1R/L) by pulling and sliding off the inner spring clip (H3) and the Inner Lens Clip (C1).
3. Pull the lamp (L1) from the socket (S1).
4. Wearing clean, lint-free gloves, insert the new 2-pin lamp into the lamp socket.



CAUTION

Touching quartz lamps with bare fingers may seriously shorten lamp life. If the quartz lamp has been touched, clean the lamp with tissue moistened with isopropyl alcohol.

- Failure to observe a warning may result in equipment damage.

5. Reinstall the inner lens segments and outer lens by reversing the removal procedure.
6. Reinstall the outer lens.
7. Clamp the latch on the outer lens.

5.3 Troubleshooting

5.3.1 Action Table in the Event of a System or Component Malfunction

This section contains troubleshooting information. This information covers only the most common problems that you may encounter. If you cannot solve the problem with the information given here, contact your local ADB Safegate representative for help.

Table 5: Product ERTE Troubleshooting Guide Table

Problem	Possible Cause	Corrective Action
Lamp not energizing	Defective lamp	Replace the lamp
	Loose or broken contacts	Replace the lamp or light socket
	Power supply failure	Replace the power supply
	Fixture wires pinched	Replace/repair the wire
	Defective isolation transformer	Replace the transformer
Lamp not turning on at normal level	Isolation transformer secondary current incorrect or wrong frequency type	Check for the proper transformer size and replace with the correct transformer
	Wrong fixture installed	Replace the fixture
Improper color	inner lens broken	Replace inner lens
	inner lens not installed or wrong color	
Short lamp life	Current too high (series circuit applications)	Calibrate the CCR

Table 5: Product ERTE Troubleshooting Guide Table

Problem	Possible Cause	Corrective Action
	Cracked lens or base assembly	Replace the broken assembly. Clean and reassemble the light fixture.
	Component Failure	Replace the failed component. Check for a cause of the failure and repair or replace any defective components.

6.0 Parts

Ordering Code

Lamp	Inner Lens Color	Fixture Height	Outer Lens
44A2090	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Lamp

1 = 110-120 W/6.6 A Quartz²

Inner Lens Color

3 = White/Red¹

4 = Yellow/Green¹

6 = Red/Green

7 = Red/Red¹

8 = Green/Green

9A = Green/Yellow¹

Fixture Height

1 = 14 in (35.6 cm) with 1.5" coupling, 12 TPI

2 = 24 in (61.0 cm) with 1.5" coupling, 12 TPI

3 = 30 in (76.2 cm) with 1.5" coupling, 12 TPI

Outer Lens

1 = Not Obscured

2 = Obscured

Ordering Code Notes

¹ Color and/or color configuration not recognized by FAA.

² Can be supplied with 110 W, 115 W or 120 W lamp based on availability.

6.1 Product Major Components

Table 6: Spare Components

Description	Part No.
Column 1" , 7.25" (18.42 cm) for 14" OAH	62A0007-7
Column 1" , 17.25" (43.82 cm) for 24" OAH	62A0007-17
Column 1" , 23.25" (59.06 cm) for 30" OAH	62A0007-23
Frangible coupling, 1.5 inch, 12 TPI	62B0073/SPARE
Clamp band assembly	44A2060
Frangible coupling, 1.5 inch, 12 TPI, with slot	62B0461/SPARE
Gasket	63A0640
Head assembly w/clamp band, gasket, socket, mounting plate, and 24-in cord set	44A2080-1
Head assembly w/clamp band, gasket, socket, mounting plate, and 14-in cord set	44A2080-2

Table 6: Spare Components

Description	Part No.
Head assembly w/clamp band, gasket, socket, mounting plate, and 30-in cord set	44A2080-3
Inner lens clip	60C2041
Inner lens, bracket	61A0146
Inner lens, spring clip	65A0163
Lamp, 110-120 W/6.6 A	48A0069
Lens, inner - 180° segment, white	63B0415-1
Lens, inner - 180° segment, yellow	63B0415-2
Lens, inner - 180° segment, red	63B0415-3
Lens, inner - 180° segment, green	63B0415-4
Outer lens, white bidirectional	63B0480
Socket mounting plate assembly (includes socket, mounting plate and inner lens clip)	44A2089

6.2 Illustrated Parts List or Exploded View Diagram

Figure 4: ERTE Assembly (see Tables 4-7)

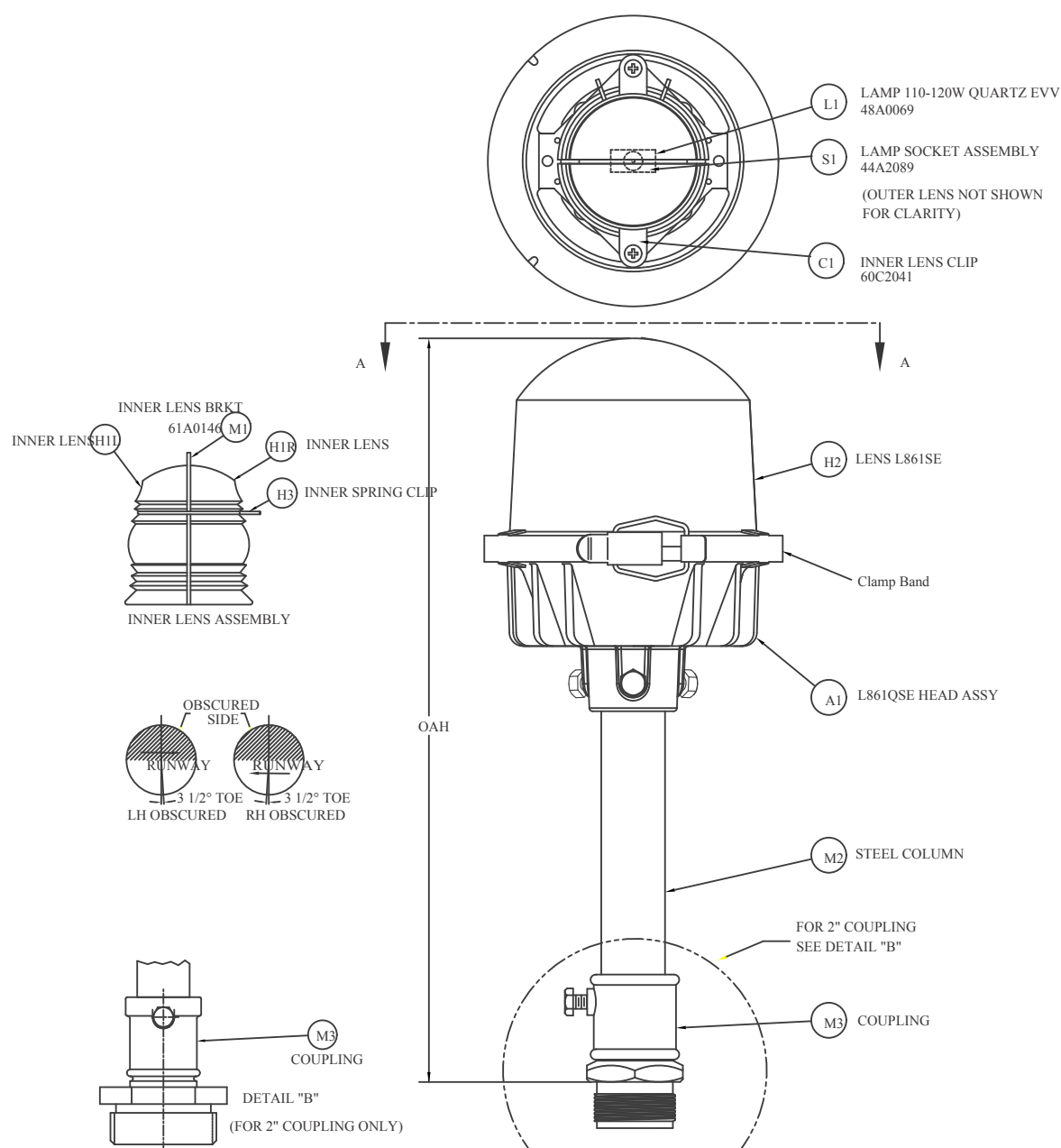


Table 7: H1R/L Inner Lens

ASSEMBLY NUMBER	PART NUMBER	ITEM NO.	PART NAME/ DESCRIPTION	QTY.
44A2090/X1XX	63B0415/1	H1L	Inner Lens, Clear	1
	63B0415/1	H1R	Inner Lens, Clear	1
44A2090/X2XX	63B0415/1	H1L	Inner Lens, Clear	1
	63B0415/2	H1R	Inner Lens, Yellow	1
44A2090/X3XX	63B0415/1	H1L	Inner Lens, Clear	1

Table 7: H1R/L Inner Lens

ASSEMBLY NUMBER	PART NUMBER	ITEM NO.	PART NAME/ DESCRIPTION	QTY.
	63B0415/3	H1R	Inner Lens, Red	1
44A2090/X4XX	63B0415/1	H1L	Inner Lens, Clear	1
	63B0415/4	H1R	Inner Lens, Green	1
44A2090/X5XX	63B0415/2	H1L	Inner Lens, Yellow	1
	63B0415/3	H1R	Inner Lens, Red	1
44A2090/X6XX	63B0415/3	H1L	Inner Lens, Red	1
	63B0415/4	H1R	Inner Lens, Green	1
44A2090/X7XX	63B0415/3	H1L	Inner Lens, Red	1
	63B0415/3	H1R	Inner Lens, Red	1
44A2090/X8XX	63B0415/4	H1L	Inner Lens, Green	1
	63B0415/4	H1R	Inner Lens, Green	1
44A2090/X9XX	63B0415/4	H1L	Inner Lens, Green	1
	63B0415/2	H1R	Inner Lens, Yellow	1
44A2090/XAXX	63B0415/3	H1L	Inner Lens, Red	1
	63B0415/5	H1R	Inner Lens, Blue	1
44A2090/XBXX	63B0415/5	H1L	Inner Lens, Blue	1
	63B0415/5	H1R	Inner Lens, Blue	1

Table 8: A1 and M2 Column and Head Assembly

ASSEMBLY NUMBER	PART NUMBER	ITEM NO.	PART NAME/ DESCRIPTION	QTY.
44A2090/XX1X 44A2090/XX5X	44A2080/1	A1	Head Assy For 14" OAH	1
	62A0007/8	M2	6.5" Column For 14" OAH	1
44A2090/XX2X 44A2090/XX6X	44A2080/2	A1	Head Assy For 24" OAH	1
	62A0007/18	M2	16.5" Column For 24" OAH	1
44A2090/XX3X 44A2090/XX7X	44A2080/3	A1	Head Assy For 30" OAH	1
	62A0007/24	M2	22.5" Column For 30" OAH	1

Table 9: H2 Outer Lens

ASSEMBLY NUMBER	PART NUMBER	ITEM NO.	PART NAME/ DESCRIPTION	QTY.
44A2090/XXX1	63B0480	H2	Outer Lens, Clear	1
44A2090/XXX2	63B0580	H2	Outer Lens, Clear/ obscured	1

Table 10: M3 Coupling

ASSEMBLY NUMBER	PART NUMBER	ITEM NO.	PART NAME/ DESCRIPTION	QTY.
44A2090/XX1X	62B0073/SPARE	M3	14" OAH, 1-1/2" Coupling	1
44A2090/XX2X	62B0073/SPARE	M3	24" OAH, 1-1/2" Coupling	1
44A2090/XX3X	62B0073/SPARE	M3	30" OAH, 1-1/2" Coupling	1
44A2090/XX5X	61A0281/SPARE	M3	14" OAH, 2" Coupling	1
44A2090/XX6X	61A0281/SPARE	M3	24" OAH, 2" Coupling	1
44A2090/XX7X	61A0281/SPARE	M3	30" OAH, 2" Coupling	1

Table 11: Stake Mounting and Hardware

Item	Description	Part Number	Quantity	Note
NS	Stake assembly	44B0348	1	
NS	Stake hardware only	44A2158	1	
NS	Stake only	62B0284	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

Technical Support – Global

Customers in Europe, the Middle East, Africa or Asia Pacific are more than welcome to our portal for technical support. 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. In the Americas, we also offer live technical support.

Live Technical Support – Americas

If at any time you have a question or concern about your product, contact ADB SAFEGATE's US-based technical support specialists, available 24 hours a day, seven days a week, to assist you via phone.

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

ADB SAFEGATE Americas Technical Service & Support (Canada): +1-905-631-1597

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

We can also be reached via email during regular business hours:

Airfield and Gate: techservice.us@adbsafegate.com

Gate: gateservice.us@adbsafegate.com

We look forward to working with you!

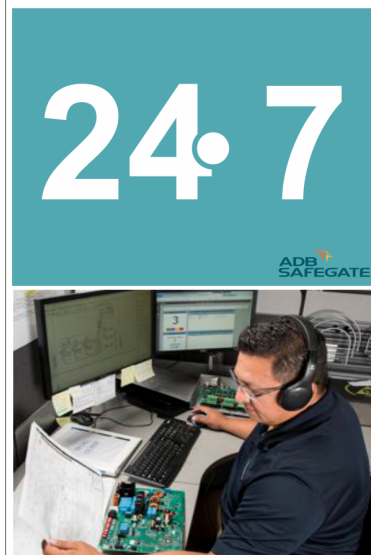
Before You Call

When you have an airfield lighting or system control system problem, prior to calling, please ensure the following:

- Review the product's manual and troubleshooting guide.
- Be located with the product ready to troubleshoot.
- Have all necessary information available: airport code/company name, customer id number, contact phone number/email address, product/part number.
- Have a True RMS meter available and any other necessary tools.

When calling about an issue with Safedock A-VDGS, we can serve you better if you collect the following information before you call:

- Relevant information regarding the issue you are calling about, such as gate number, flight number, aircraft type and time of the event.
- What, if any, actions have been taken to resolve the issue prior to the call.
- If available, provide a CCTV recording of the incident to aid in aligning the information from the Safedock log file.



Note

For more information, see www.adbsafegate.com, contact ADB SAFEGATE Support via email at support@adbsafegate.com or Europe: +32 2 722 17 11

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

China: +86 (10) 8476 0106

Middle East and Africa: +971 4 452 7575

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 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.

