



L-849 and L-849(L) REIL FAA Baffle Installation Procedure
KIT 94A0198 and 94A0198/LED

Service Bulletin

ALN073, Rev. H, 2024/04/10

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

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ADB SAFEGATE will correct by repair or replacement per the applicable guarantee below, 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.

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Standard Products Guarantee

Products manufactured by ADB SAFEGATE 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 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.

FAA Certified products manufactured by ADB SAFEGATE

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 LED products (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). These FAA certified constant current (series) powered LED products must be installed, interfaced and powered with and through products certified under the FAA Airfield Lighting Equipment Program (ALECP) to be included in this 4 (four) year warranty. This includes, but is not limited to, interface with products such as Base Cans, Isolation Transformers, Connectors, Wiring, and Constant Current Regulators.

i 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.

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 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.



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



DANGER - Risk of electrical shock or ARC FLASH
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.



WARNING - Wear personal protective equipment
Failure to observe may result in serious injury.



WARNING - Do not touch
Failure to observe this warning may result in personal injury, death, or equipment damage.



CAUTION
Failure to observe a caution may result in equipment damage.



ELECTROSTATIC SENSITIVE DEVICES
This equipment may contain electrostatic devices.

Qualified Personnel



Important Information

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.

Always use required personal protective equipment (PPE) and follow safe electrical work practice.

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 Operation Safety



CAUTION

Improper Operation

Do Not Operate this equipment other than as specified by the manufacturer

- Only qualified personnel, physically capable of operating the equipment and with no impairments in their judgment or reaction times, should operate this equipment.
- Read all system component manuals before operating this equipment. A thorough understanding of system components and their operation will help you operate the system safely and efficiently.
- Before starting this equipment, check all safety interlocks, fire-detection systems, and protective devices such as panels and covers. Make sure all devices are fully functional. Do not operate the system if these devices are not working properly. Do not deactivate or bypass automatic safety interlocks or locked-out electrical disconnects or pneumatic valves.
- 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.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Never operate equipment with a known malfunction.
- Do not attempt to operate or service electrical equipment if standing water is present.
- Use this equipment only in the environments for which it is rated. Do not operate this equipment in humid, flammable, or explosive environments unless it has been rated for safe operation in these environments.
- Never touch exposed electrical connections on equipment while the power is ON.

Failure to follow these instructions can result in equipment damage

1.1.5 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

2.0 L-849 and L-849(L) REIL Baffle Kit

This bulletin describes the field installation procedure to attach FAA style baffle assembly to the L-849 and L-849(L) Runway End Identification Light. The baffles are designed to meet the requirements for REIL baffles assemblies as described in FAA Advisory Circular, AC 150/5340-30J and AC 150/5340-26C.

The baffles are designed to cut-off the top portion of the light beam. The baffles are not adjustable.

Orient the beam axis of an un-baffled unit 15 degrees outward from a line parallel to the runway and inclined at an angle 10 degrees above the horizontal.

If this standard setting is operationally objectionable, provide optical baffles (per the manufacturer's instructions) and orient the beam axis of the unit 10 degrees outward from a line parallel to the runway centerline and inclined at an angle of 3 degrees above the horizontal.

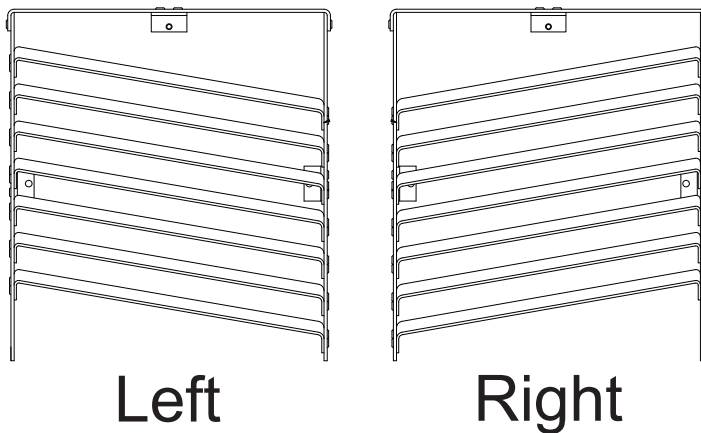
Refer to AC 150/5340-30J paragraph 7.7.5 for proper aiming and layout of the REIL.

2.1 L-849 Xenon REIL Baffle Kit

Special Tools And Equipment Required (not supplied):

- Long reach #2 Phillips screwdriver
- Wrench or Socket for #8-32 hex head nut
- Ratchet for #8-32 hex head socket
- Electric or Air drill
- 3/16 drill bit

Figure 1: Baffle Kits



2.1.1 Xenon REIL Baffle Kit

Retrofit Kit 94A0198 contains the following components:

Description	Part Number	Qty
Baffle Assembly - Left Hand	44D2408/1	1
Baffle Assembly - Right Hand	44D2408/2	1
Spacer, .25 OD x 1/2" long	66A0016	4
Screw, pan head. #8-32x3/8	64A0191/6	8
Nut, hex #8-32	65A0043/3	2

Description	Part Number	Qty
Flat washer, #8	66A0015/15	10
Lock washer, split #8	66A0026/15	12
Screw, pan head #8-32x5/8	64A0191/10	2

2.1.1.1 Assembly Steps



WARNING

- Disconnect and lock out electrical power.
- Remove all power to L-849 before attempting to make any modifications.

Install the Baffle Assembly

1. Two additional holes must be drilled in to the flange of the flash head before the baffles can be installed. See [Figure 2](#) for location of the new holes on the left and right side of the flash head flange. The center top hole is already in the flange and is ready to use.



Note

The baffle fins are slanted with the low end of the fin pointing toward the centerline of the runway. Therefore there is a LEFT and RIGHT hand baffle assembly. Left and Right is as viewed by the pilot on approach.

2. Locate the three mounting clips on the left (44D2408/1) or the right (44D2408/2) sides of baffle assembly. Attach spacer to mounting clip using #8-32 x 3/8 Lg pan head screws, #8 split lock washers, and #8 flat washers as shown in [Figure 3](#).
3. Insert flashing head assembly into baffle assembly as shown in [Figure 3](#) aligning mounting holes ([Figure 2](#) and [Figure 3](#)) in flashing head assembly with left and right spacers and top mounting clip.
4. Secure flashing head assembly to left and right mounting clips by attaching to spacer using #8-32 x 3/8 Lg pan head screws and #8 flat washers as shown in [Figure 3](#).
5. Secure flashing head assembly to top mounting clip using #8-32 x 5/8 Lg pan head screw, #8 split lock washers, #8 flat washer, and #8-32 hex nut as shown in [Figure 3](#).
6. Assembly is complete. Repeat procedure for the other baffle.



Note

Any deviations from the above instructions will void the warranty.

Figure 2: Hole Location in Flash Head Assembly

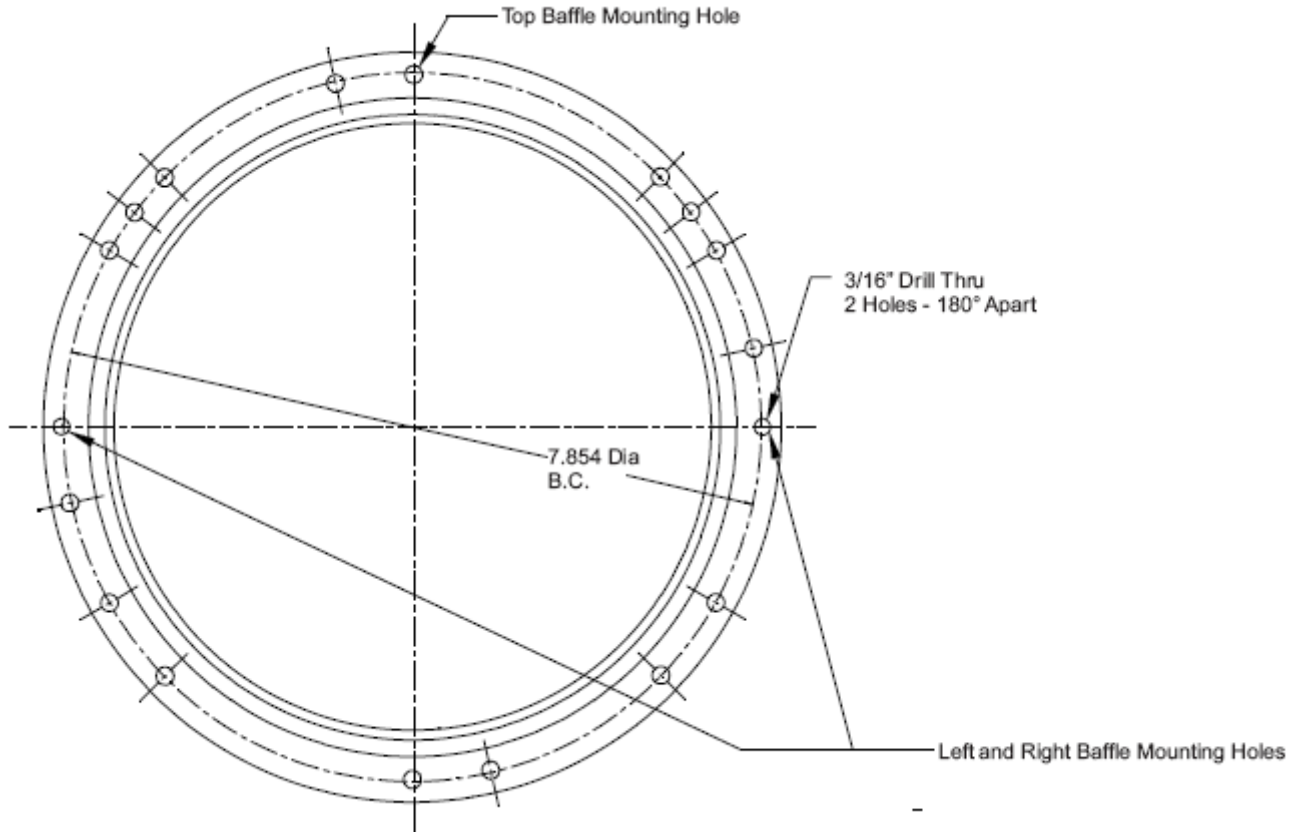
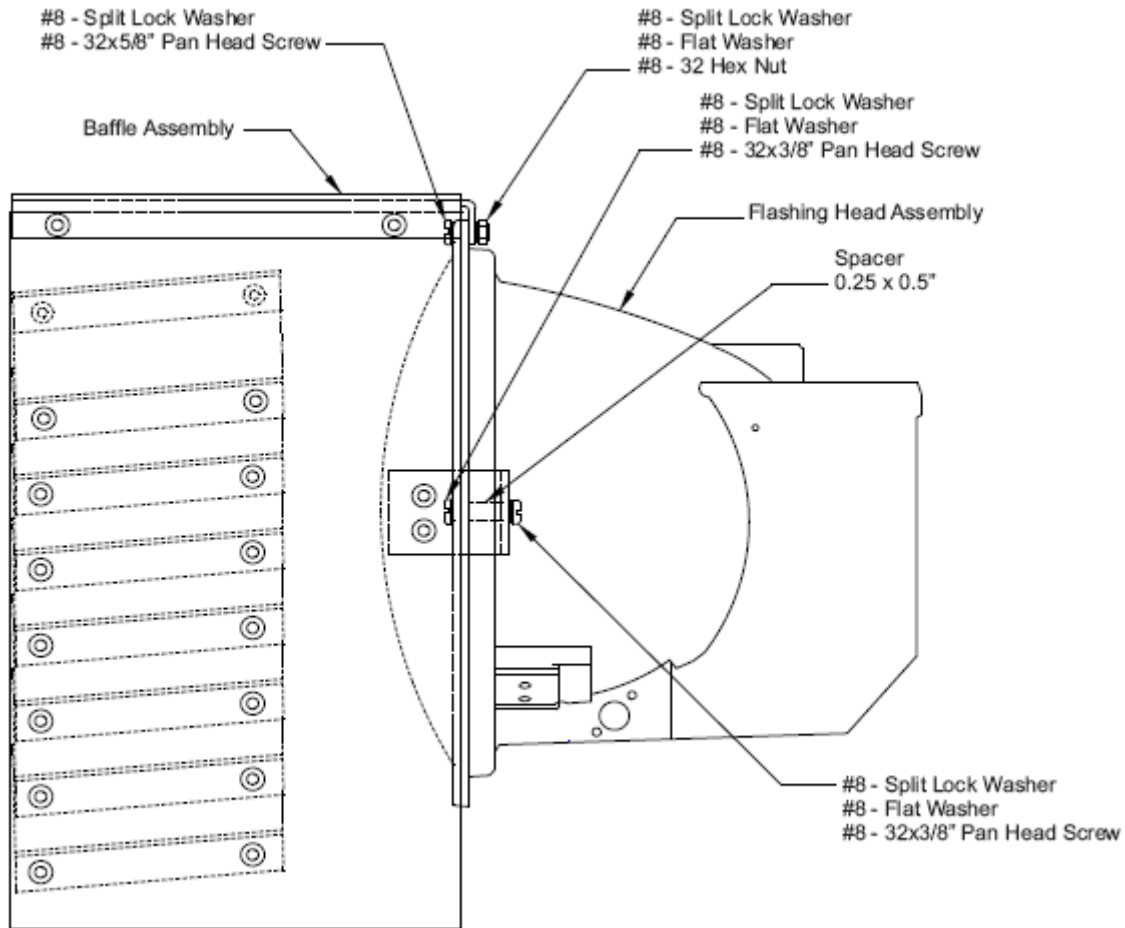


Figure 3: Baffle and Flash Head Assembly

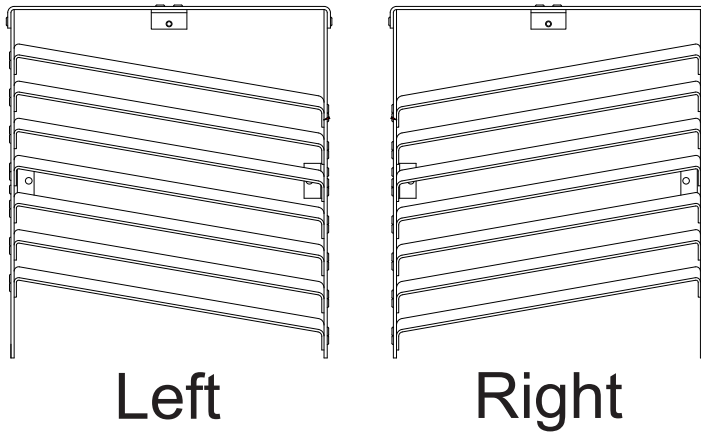


2.2 L-849(L) LED REIL Baffle Kit

Special Tools And Equipment Required (not supplied):

- Long reach #2 Phillips screwdriver
- Wrench or Socket for #6-32 hex head nut
- Ratchet for #6-32 hex head socket

Figure 4: Baffle Kits



2.2.1 LED REIL Baffle Kit

Retrofit Kit 94A0198/LED contains the following components:

Description	Part Number	Qty
Baffle Assembly - Left Hand	44D2408/1LED	1
Baffle Assembly - Right Hand	44D2408/2LED	1
Nut, hex #6-32	65A0015/11	8
Lock washer, internal tooth #6	66A0038/3	8
Screw, pan head #6-32 x 3/4	64A0198/12	8

2.2.1.1 Assembly Steps



WARNING

- Disconnect and lock out electrical power.
- Remove all power to L-849(L) before attempting to make any modifications.

Install the Baffle Assembly

i Note

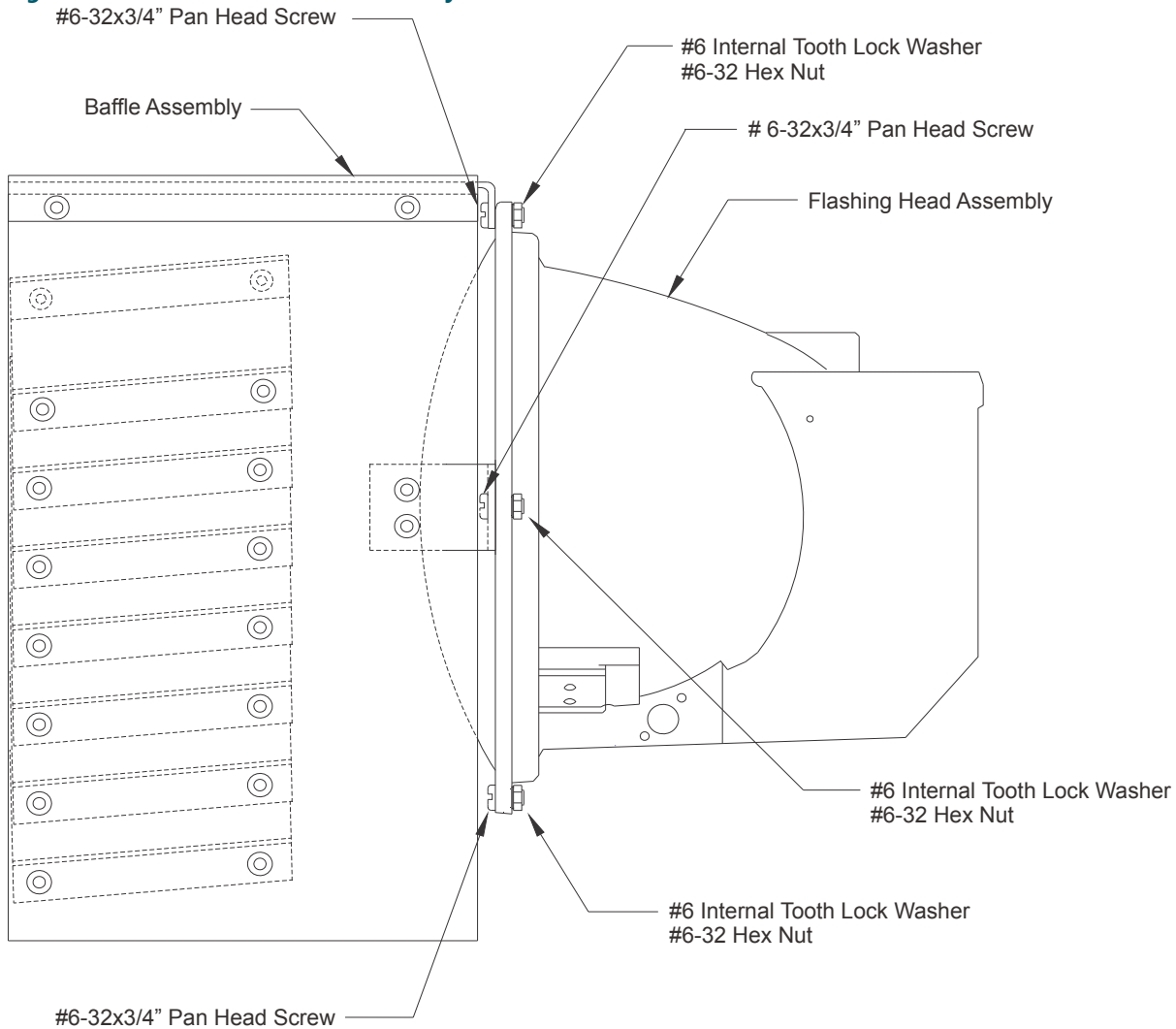
The baffle fins are slanted with the low end of the fin pointing toward the centerline of the runway. Therefore there is a LEFT and RIGHT hand baffle assembly. Left and Right is as viewed by the pilot on approach.

1. Locate the three mounting brackets on the top, the left and the right sides of baffle assembly.
2. Insert flashing head assembly into baffle assembly as shown in [Figure 5](#) aligning mounting holes ([Figure 5](#)) in flashing head assembly with left, right and top mounting bracket.
3. Secure flashing head assembly to top, left and right mounting brackets using #6-32 x 5/8 Lg pan head screws and #6 flat washers, #6 split lock washers, and #6-32 hex nut as shown in [Figure 5](#).
4. Assembly is complete. Repeat procedure for the other baffle.

i Note

Any deviations from the above instructions will void the warranty.

Figure 5: Baffle and Flash Head Assembly





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