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ORIGINAL INSTRUCTIONS**EQUIPMENT NAME:**

AEROLADDER 429

MODELS:

K02, K03, K04

MACHINERY DESIGNATION:

CARBON FIBRE LADDER

EQUIPMENT PART NUMBER:

AM-LDR-429-K02

AM-LDR-429-K03

AM-LDR-429-K04

LANGUAGE:

ENGLISH

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Written by Date: MATEUS FREITAS 06/JUN/2025	Approved by Date: PHIL XAVIER 06/JUN/2025
Updated by Date:	Approved by Date:

1 INTRODUCTION

The equipment you are receiving was developed under the most advanced engineering concept. Congratulations on your operational choice!

This manual contains instructions and approved operating procedures for using the AEROLADDER 429.

This User Manual is a mandatory read by anyone wishing to operate the equipment, assuring quality and safety in the operation.

In addition to this User Manual, your equipment is accompanied by the following documents: Flight Manual Supplement (FMS), Maintenance Manual (MM) and Illustrated Parts Catalog (IPC). For more information on these documents, as well as on Warranty and Support, see chapters 10 and 11 of this manual.

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2 PRODUCT VERSIONS

AEROMOB manufactures 4 versions of each AEROLADDER 429 model:

PN: AM-LDR-429-K01: Ladder with the features of the standard set, weighing 2.8kg.

PN: AM-LDR-429-K02: Ladder with all the features of the standard set and also a RETRACTABLE HANDRAIL SET installed on the RIGHT side of the ladder.

- Providing greater support and safety to passengers during boarding and disembarking.
- Handrail with retractable system, taking up the minimum amount of space necessary when in the retracted position, aligned with the ladder stringer.
- Robust and practical locking and unlocking system.

Note: In addition to the external retractable handrail assembly, the system includes an internal structural reinforcement in the ladder monobloc. Part number AM-LDR-429-K02 has 2.2kg additional weight compared to part number AM-LDR-429-K01.

PN: AM-LDR-429-K03: Ladder with all the features of the standard set and also a RETRACTABLE HANDRAIL SET installed on the LEFT side of the ladder.

- Providing greater support and safety to passengers during boarding and disembarking.
- Handrail with retractable system, taking up the minimum amount of space necessary when in the retracted position, aligned with the ladder stringer.
- Robust and practical locking and unlocking system.

Note: In addition to the external retractable handrail assembly, the system includes an internal structural reinforcement in the ladder monobloc. Part number AM-LDR-429-K03 has 2.2kg additional weight compared to part number AM-LDR-429-K01.

PN: AM-LDR-429-K04: Ladder with all the features of the standard set and also two RETRACTABLE HANDRAIL SETS, one installed on the RIGHT side and the other on the LEFT side of the ladder.

Note: In addition to the external retractable handrail assembly, the system includes an internal structural reinforcement in the ladder monobloc. Part number AM-LDR-429-K04 has 4.4kg additional weight compared to part number AM-LDR-429-K01.

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It is worth highlighting that the equipment is identified in a generic way by the name AEROLADDER 429 and PN: AM-LDR-429, however the specific identification of your equipment will be according to one of the Part Numbers referenced below in accordance with the Model and Version already described.

AM-LDR-429-K02**AM-LDR-429-K03****AM-LDR-429-K04**

This User Manual applies to all AEROLADDER 429 PART NUMBERS referenced above.

3 GENERAL INFORMATION

The dimensions of AEROLADDER 429 K02, AEROLADDER 429 K03 and AEROLADDER 429 K04 are shown below.

3.1 AEROLADDER 429 K02

- Mono-block construction in flame-retardant carbon fibre.
- Retractable Handrail – RIGHT side.
- Total ladder weight: 5,0 kg.

3.2 AEROLADDER 429 K03

- Mono-block construction in flame-retardant carbon fibre.
- Retractable Handrail – LEFT side.
- Total ladder weight: 5,0 kg

3.3 AEROLADDER 429 K04

- Mono-block construction in flame-retardant carbon fibre.
- Retractable Handrail – RIGHT and LEFT side.
- Total ladder weight: 7,2 kg

4 APPROVED USE

The equipment AEROLADDER 429, has the function of accessibility for helicopters passengers. The

AEROLADDER 429 is intended for use on Bell 429 helicopters in all versions, including versions with floats installed.

The equipment is approved for passengers up to 287lb / 130kg, with the maximum of 1 (one) passenger at a time and for the exclusive use of boarding and disembarking the aircraft.

The use of this equipment on other helicopter models, people above the approved weight and/or for

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unapproved functions, is expressly prohibited.

The use of this equipment in other helicopter models or for functions not approved in this manual is prohibited. Consult the manufacturer in advance before using operating the equipment on helicopter models (more contact information in chapter 10).

5 LIMITATIONS

- The equipment is approved for embark and disembark of passengers weighing up to **287lb/130kg**, with a maximum of **1 (one) passenger** at a time. The ladder is intended for exclusive use for boarding and disembarking the aircraft at walking speed and **IS NOT INTENDED FOR JUMPS OR IMPACT**.
- Cannot be used if wind speed is above 30 km/h (16.1 knots).
- The AEROLADDER 429 can be used on paved floors, firm grass or firm hard ground, with installation of the equipment on the aircraft permitted on soils with up to a 5% slope, as long as the lower side rails are fully engaged with the ground. Use on uneven ground that leaves the ladder poorly supported is **prohibited** and **dangerous**.
- The handrail is intended to provide balance while embarking and disembarking, and is not intended to support a leaning person's weight.
- The use of equipment is safe only if the set is complete and in perfect working order. It is expressly prohibited and dangerous to use the equipment with any part or component missing or using a component that is not part of this set and/or that has not been supplied by the manufacturer. If it is necessary to replace an item or component, consult the Illustrated Parts Catalog - IPC through the link: www.aeromob-industry.com/support-am-ldr-429-k02, or by scanning the QR CODE at the end of this document.

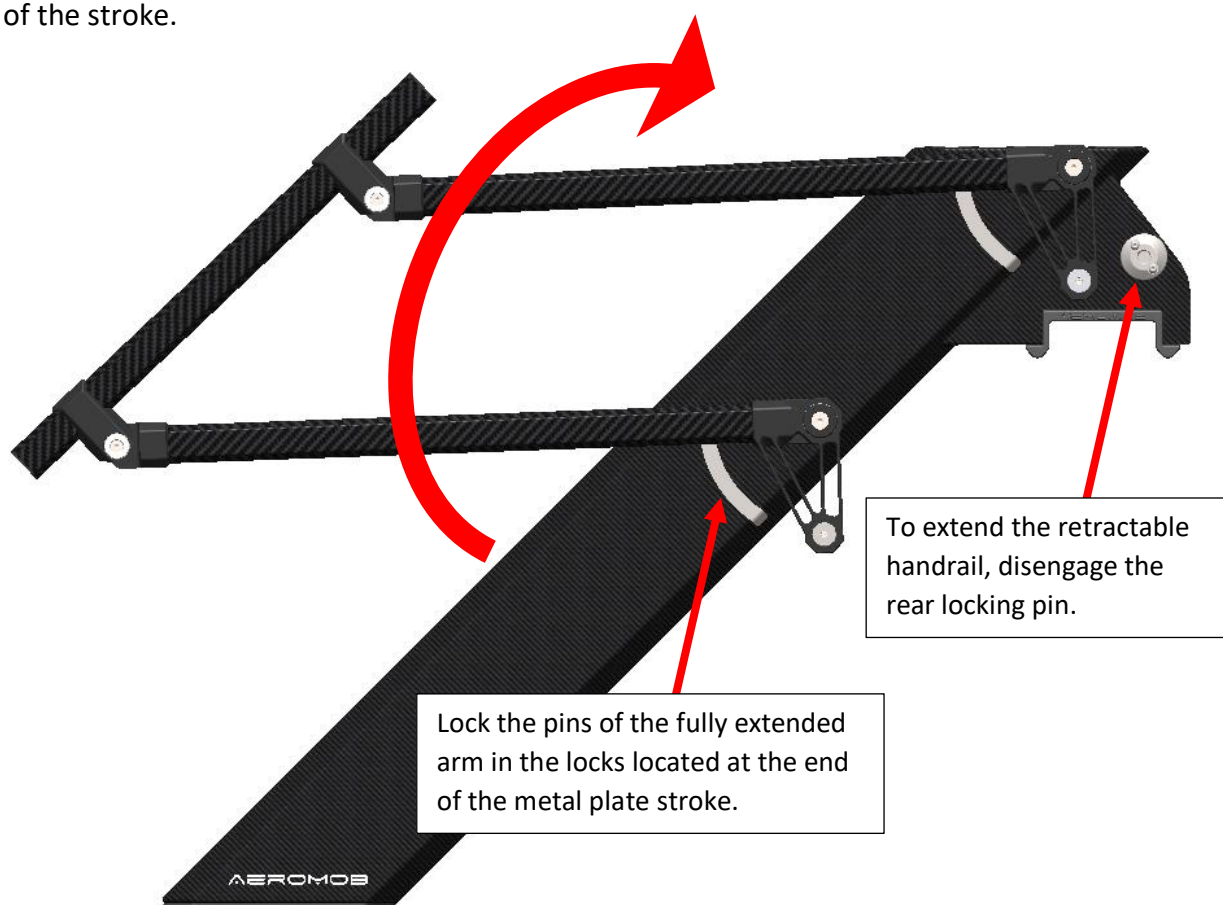
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6 INSTRUCTIONS FOR USE

Before using the AEROLADDER 429 for embark and disembark, make a visual inspection of the ladder to make sure there is no damage to its structure. While holding the side rail, carefully attach the upper shoe of the equipment to the upper landing skid/footstep while holding the ladder, as shown below. Make sure the ladder is **completely fitted** into the aircraft **footstep (skid)**, aligned with the **passenger exit path (not with the passenger seat)**. Make sure there are **no objects on the treads, nor obstructions to the ladder's base**, so that the lower side rail is fully in contact with the ground.

With the ladder attached to the aircraft ski, extend the retractable handrail. To do this, rotate the rear pin and disengage it from the lock as shown below. With the pin unlocked, extend the handrail to the end of the stroke.

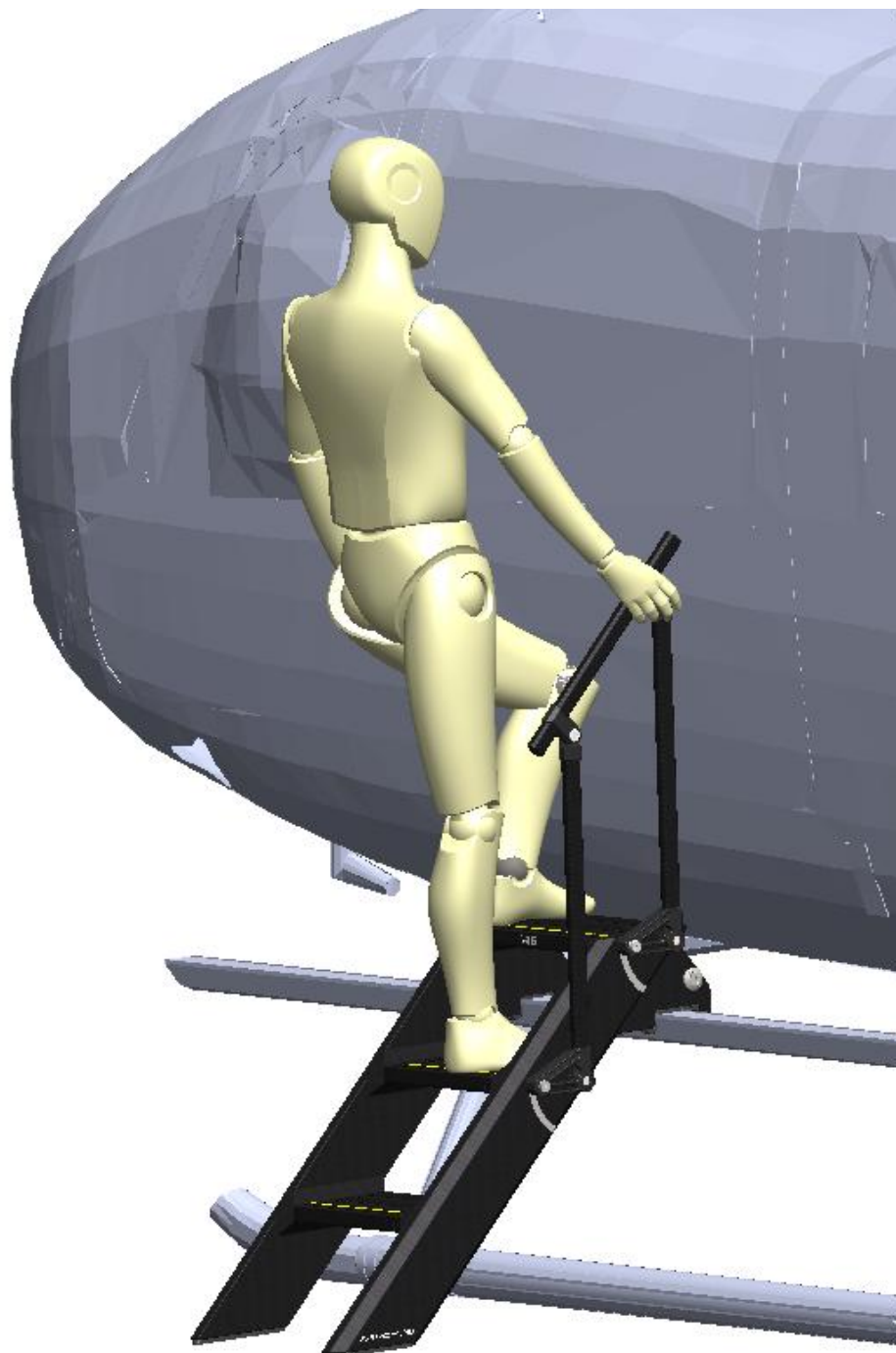


With the handrail fully extended, lock the two handrail pins into their appropriate locks, located at the end of the metal plate stroke. Make sure that the pins are properly locked and that the handrail is secure. If your AEROLADDER model has more than one handrail, repeat these instructions for the other handrail.

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Embark or disembark along the ladder's specified path and avoid forcing the equipment in a lateral motion, perpendicular to the side rails, to ensure safety and avoid sliding.

Use the handrail to assist with balancing during embarking and disembarking. During disembark, step on the ladder's upper tread before holding the handrail.



NOTE: The computer-generated images contained in this manual are merely illustrative, and the helicopter model shown may visually not match its real counterpart.

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Be aware of the location, height and distance between the ground and the treads, between the treads, and also between the top of the ladder and the aircraft. Should the embark or disembark take place while the **rotor** is **active**, the pilot **must** notify this fact **in advance** (before embarking or disembarking) to the passengers and provide proper instructions for safe embark or disembark.

Make sure a healthy and capable person stands beside the ladder to provide assistance and support in case the embarking or disembarking passenger is a child, carrying a baby/small child, has reduced mobility, has a history of labyrinthitis, vertigo, similar health condition or in any other case where aid may be needed.

If you need additional support for balance when going up or down the stairs, use the extended handrail(s) of the AEROLADDER 429.

With the ladder still attached to the aircraft, retract the retractable handrail. To do this, pull and unlock the pins on both handrail arms, and rotate the handrail to the retracted position. With the arms in the fully retracted position, lock the top pin in the stop as shown below. If your AEROLADDER model has more than one handrail, repeat these instructions for the other handrail.



Detach and store the ladder right after use, and do not leave it attached to the aircraft while not in use, during take-off, or if there are other aircrafts taking off/landing near it. Only install the ladder on

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the aircraft right before the boarding and disembarking operation, and after use always detach or store the ladder. Strong wind or gust, typical of take-off and landing of nearby aircrafts, might move the ladder out of position in a dangerous way.

7 HANDLING AND STORING

While handling the AEROLADDER 429, make sure to firmly grasp the side stringer. Store it a place sheltered from sunlight, extreme heat, and the environment, to maximize equipment service life. It may be stored in the luggage compartment of the helicopter or in the hangar, as long as it doesn't obstruct movement within the hangar space and remains visible to avoid collision or tripping.

Keeping the equipment clean, in addition to making it more beautiful, is very important for your safety. Dirt and dust can hide abnormalities that could potentially cause failure. During cleaning, it is necessary to check for the presence of cracks, gaps, deformations, noise, misalignment and any other wear or irregular characteristics.

8 PROHIBITIONS

- **NEVER** use the ladder for embarking or disembarking without ensuring that the ladder is fully attached to the footstep, and that both sides of the side rail are fully in contact with the ground.
- **DO NOT** use the ladder if it is poorly supported.
- **NEVER** use the ladder with the handrail(s) retracted.
- **NEVER** lean over the handrail. The handrail is intended to provide balance while embarking and disembarking, and is not intended to support a leaning person's weight
- **NEVER** use the ladder if any of the handrails are wobbly, unlocked, loose or damaged.
- **NEVER** use the ladder without first checking that the pins of the extended handrail(s) are properly and firmly secured in the locks.
- **DO NOT** subject the ladder to a load above the approved supported weight.
- **DO NOT** force the mechanism of the handrail(s).
- **DO NOT** leave objects on the treads, as they might obstruct the safe movement of passengers.

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- **DO NOT** allow the unassisted embark or disembark of passengers carrying baby/small child, of passengers with reduced mobility, or in any other situation aid is required for safe operation.
- **DO NOT** allow children to use the ladder to embark or disembark the aircraft without adult assistance.
- **DO NOT** extend the handrail(s) unless the ladder is properly and securely attached to the aircraft ski.
- **DO NOT** detach the ladder from the aircraft without first retracting the handrail(s).
- **DO NOT** store the ladder in the luggage compartment of the aircraft with the handrail(s) extended.
- **DO NOT** use the ladder for embark and disembark of more than 1 (one) passenger at a time.
- **DO NOT** use the ladder for embarking or disembarking on any other aircraft except for the appropriate model.
- **DO NOT** jump on the ladder.
- **DO NOT** operate the ladder under wind speeds above 30 km/h (16.1 knots).
- **DO NOT** step on the ladder inflicting lateral motion relative to the side rails, as the ladder could slip along the footstep (ski).
- **DO NOT** step on the ladder if it is not correctly and firmly attached to the aircraft.
- **DO NOT** leave the ladder attached to the aircraft while it is not in use, while taking off, or while other aircrafts are landing/taking off near it.
- **DO NOT** use the ladder for any other function except for boarding or disembarking on the approved aircraft model.
- **DO NOT** use the ladder if any part or component is missing.
- **DO NOT** use the ladder if any damage to its structure is observed.
- **DO NOT** use the ladder if any of the anti-slip/grip tape is unglued or missing.
- **DO NOT** store the ladder in places subject to direct sunlight, rain, water, or the environment.

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9 RESIDUAL RISKS

During the risk assessment procedure, the following residual risk(s) were identified:

- The **misuse** of submitting the ladder to a **loading** larger than the **maximum load capacity** is dangerous and can lead to structural failure of the equipment and falling.
- The **misuse** of leaving **objects** or **obstructions** on the **treads** is dangerous and can cause slipping and tripping.
- Loss of balance in the case of **unassisted** embark or disembark of passengers carrying baby/small child, with reduced mobility, or with a history of labyrinthitis, vertigo, similar health condition, which is **prohibited** in this manual.
- Leaning body weight on the handrails.

By following the instructions provided in this user manual, as well as the other included documentation, the safe operation of the machine can be ensured, as these documents address all relevant risks associated with the equipment.

10 PRODUCT DOCUMENTS

10.1 FLIGHT MANUAL SUPPLEMENT (FMS)

The Flight Manual Supplement (FMS), sent printed with the equipment and available for digital consultation, should be inserted into the flight manual (POH), in the SUPPLEMENTS section, for quick access of basic information relating to this equipment. This document is applicable to the AEROLADDER models AM-LDR-429-K02, AM-LDR-429-K03 and AM-LDR-429-K04. To access the updated version of the Flight Manual Supplement (FMS), go to: www.aeromob-industry.com/support-am-ldr-429-k02 or just scan the QR CODE available in this Manual.

10.2 USER MANUAL

This document is the User Manual. It is mandatory reading before operating the AEROLADDER 429 K02, AEROLADDER 429 K03 or AEROLADDER 429 K04. To access the updated version of the User Manual, go to: www.aeromob-industry.com/support-am-ldr-429-k02 or just scan the QR CODE available in this Manual.

10.3 MAINTENANCE PROCEDURES

The overhaul plan and any necessary maintenance procedures must be carried out in accordance with the maintenance manual, document part number MM-AM-LDR-429-K02. To access the updated

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version of the Maintenance Manual, go to: www.aeromob-industry.com/support-am-ldr-429-k02 or just scan the QR CODE available in this Manual.

10.4 SPARE PARTS

The Illustrated Parts Catalog - IPC is the official reference document for ordering spare parts. Consult the IPC associated with your equipment model. To access the updated version of the Illustrated Parts Catalog, go to: www.aeromob-industry.com/support-am-ldr-429-k02 or just scan the QR CODE available in this Manual.

10.5 WARRANTY

Your equipment has a 1-year warranty and, if necessary, can be requested directly from AEROMOB via the link: www.aeromob-industry.com/support-am-ldr-429-k02 or by scanning the QR CODE available in this Manual.

10.6 SUPPORT

If you have any questions about how to use the equipment, please contact our support team. Do not use the equipment if you have any doubts about its operation. If you notice any faults with the equipment, if components are missing, or in any other case where support is required, please contact us via the website, which can be accessed via the link: www.aeromob-industry.com/support-am-ldr-429-k02 or by scanning the QR CODE available in this Manual.

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11 ACCESS TO ALL UPDATED DOCUMENTATION

Below is a list of files and documents available to the customer of this equipment and the QR CODE for access to the always up-to-date version:

(PN FMS-AM-LDR-429-K02) SUPPLEMENT TO THE FLIGHT MANUAL

(PN UM-AM-LDR-429-K02) USER MANUAL

(PN MM-AM-LDR-429-K02) MAINTENANCE MANUAL

(PN IPC-AM-LDR-429-K02, IPC-AM-LDR-429-K03 e IPC-AM-LDR-429-K04) ILLUSTRATED PARTS CATALOG



www.aeromob-industry.com/support-am-ldr-429-k02

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