

CLM-4

Controlled Lens Motor

USER MANUAL

Date: May 7, 2014

All rights reserved.

This document is provided under a license agreement containing restrictions on use and disclosure and is also protected by copyright law.

Due to continued product development this information may change without notice. The information and intellectual property contained herein is confidential between ARRI and the client and remains the exclusive property of ARRI. If you find any problems in the documentation, please report them to us in writing. ARRI does not warrant that this document is error-free.

Arnold & Richter Cine Technik
Tuerkenstr. 89
D-80799 Munich
Germany

mailto: service@arri.com
<http://www.arri.com>

Scope

This instruction manual applies to the following hardware:

ARRI CLM-4

Document revision history

No.	ID	drawing	release/revision	date
1	K5.74265.0	0090-00-00-00-02	FG991	Dec 18, 2012
2	K5.74265.0	0090-00-00-00-02	FG991	May 16, 2013
3	K5.74265.0	0090-00-00-00-02	FG991	Jan 14, 2014
4	K5.74265.0	0090-00-00-00-02	FG991	May 7, 2014

Disclaimer

Before using the products described in this manual be sure to read and understand all respective instructions.

The ARRI CLM-4 is only available to commercial customers. The customer grants by utilization that the ARRI CLM-4 or other components of the system are deployed for commercial use. Otherwise the customer has the obligation to contact ARRI preceding the utilization.

While ARRI endeavors to enhance the quality, reliability and safety of their products, customers agree and acknowledge that the possibility of defects thereof cannot be eliminated entirely. To minimize risk of damage to property or injury (including death) to persons arising from defects in the products, customers must incorporate sufficient safety measures in their work with the system and have to heed the stated canonic use.

ARRI or its subsidiaries do not assume any responsibility for incurred losses due to improper handling or configuration.

ARRI assumes no responsibility for any errors that may appear in this document. The information is subject to change without notice.

For product specification changes since this manual was published, refer to the latest publications of ARRI data sheets or data books, etc., for the most up-to-date specifications. Not all products and/or types are available in every country. Please check with an ARRI sales representative for availability and additional information.

Neither ARRI nor its subsidiaries assume any liability for infringement of patents, copyrights or other intellectual property rights of third parties by or arising from the use of ARRI products or any other liability arising from the use of such products. No license, express, implied or otherwise, is granted under any patents, copyrights or other intellectual property right of ARRI or others.

ARRI or its subsidiaries expressly exclude any liability, warranty, demand or other obligation for any claim, representation, or cause, or action, or whatsoever, express or implied, whether in contract or tort, including negligence, or incorporated in terms and conditions, whether by statute, law or otherwise. In no event shall ARRI or its subsidiaries be liable for or have a remedy for recovery of any special, direct, indirect, incidental, or consequential damages, including, but not limited to lost profits, lost savings, lost revenues or economic loss of any kind or for any claim by third party, downtime, good-will, damage to or replacement of equipment or property, any cost or recovering of any material or goods associated with the assembly or use of our products, or any other damages or injury of the persons and so on or under any other legal theory.

In the case one or all of the foregoing clauses are not allowed by applicable law, the fullest extent permissible clauses by applicable law are validated.

ARRI is a registered trademark of Arnold & Richter CineTechnik GmbH & Co Betriebs KG.

This product meets CE regulations.

Safety Instructions

Any violation of these safety instructions or non-observance of personal care could cause serious injuries to users and affiliates and damage to the equipment or other objects.

- Always follow these instructions to ensure against injury to yourself or others and damage to the system or other objects.
- This safety information is in addition to the product specific operating instructions in general and must be strictly observed for safety reasons.
- Read and understand all safety and operating instructions before you operate or install the system!
- Retain all safety and operating instructions for future reference.
- Do not use accessories or attachments that are not recommended by ARRI, as they may cause hazards and invalidate the warranty!
- Do not attempt to repair any part of the system! Repairs must only be carried out by authorized ARRI Service Centers.
- Do not remove any safety measures from the system!
- Do not operate the system in areas with humidity above operating levels or expose it to water or moisture!
- Do not subject the system to severe shocks!
- Unplug the system from the power outlet before opening any part of the system or before making any changes to the system, especially the attaching or removing of cables!
- Do not use solvents to clean!
- Do not remove any stickers or paint marked screws!
- **Do not touch the lens gear wheel when power is applied to the motor!**

ARRI CLM-4



Figure 1: CLM-4

Introduction

The CLM-4 is a compact and lightweight lens motor with a set of four different gear modules in the basic bundle. CLM-4 will prove especially useful in tight situations with limited space, since the gear modules can be mounted either side of the motor.

The clamp console is adjustable and the motor cable is detachable, allowing quick and easy on-set maintenance and trouble-shooting. Additional mounting accessories are optionally available.

For large diameter lenses we recommend the usage of the CLM-3 standard clamp console.

Part Numbers

Controlled Lens Motor CLM-4 Basic Set K0.60185.0

The CLM-4 basic set includes:

CLM-4 Motor Unit	K2.72114.0
CLM-4 Standard Clamp Console 19/15mm	K2.72101.0
CLM-4 Gear Set 0.8, 0.6, 0.5, 0.4	K2.72116.0
CLM-4 Motor Cable 0.8m (2.5ft)	K2.72099.0

Optional Accessories:

CLM-4 Gear 0.8 gear insert and captive screw included	K2.72108.0
CLM-4 Gear 0.6 gear insert and captive screw included	K2.72111.0
CLM-4 Gear 0.5 gear insert and captive screw included	K2.72110.0
CLM-4 Gear 0.4 gear insert and captive screw included	K2.72109.0
CLM-4 Gear assembly 48pitch, 75 teeth	K2.0002044
CLM-4 Rod-to-Rod Adapter 15mm	K2.72106.0
CLM-4 Rod-to-Rod Adapter Bridge 15mm	K2.72107.0
CLM-4 Rosette Adapter for Hill Bracket	K2.72113.0
CLM-4 Clamp Insert 5/8"	K2.72115.0
CLM-4 Wide Gear 0.8x25 gear insert and captive screw included	K2.72112.0
CLM-4 Knurled Head Captive Screw	K2.72127.0
CLM-3 Standard Clamp Console recommended for lenses with large diameter	K2.65140.0

CLM-4 Compatibility

The CLM-4 functionality depends on the type of Motor Control Units and the installed Software Packet.

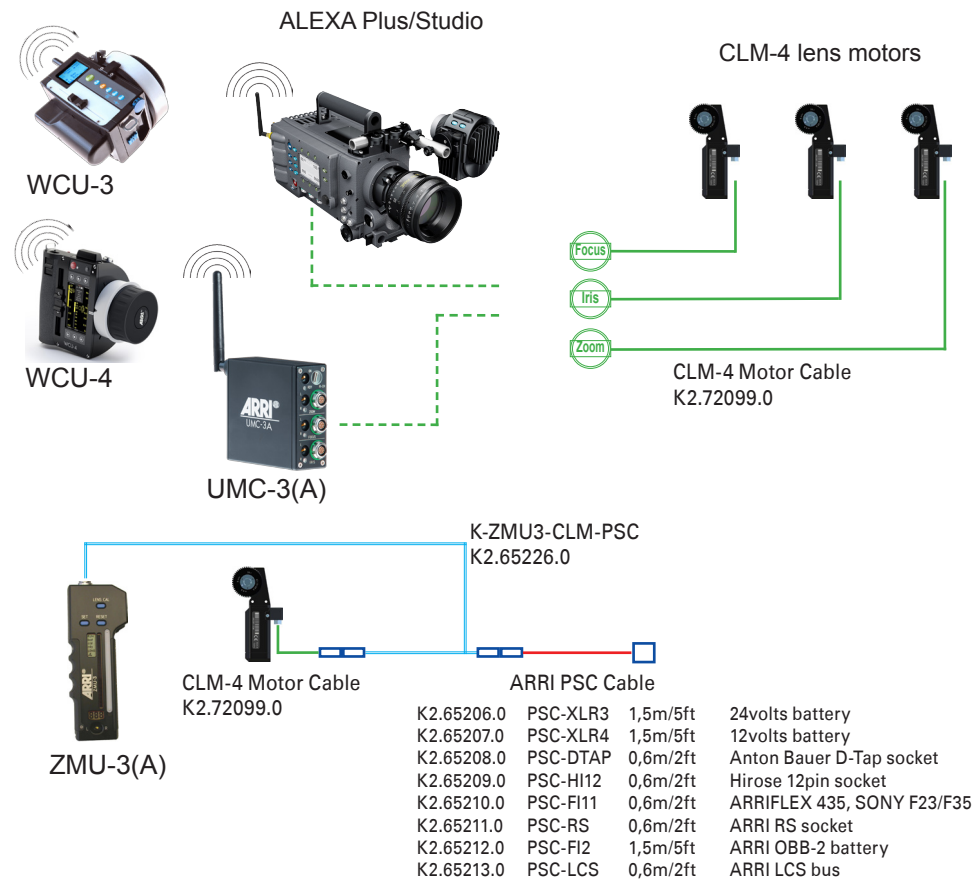
Unit	CLM-4 Support	Torque Control Support	Software Packet
ALEXA PLUS/STUDIO	YES	YES	SUP 7.0 or later
UMC-3A	YES ³⁾	YES ¹⁾	Packet 04B or later
UMC-3	YES ³⁾	NO	
ZMU-3A	YES	YES ²⁾	Packet 02E or later
ZMU-3	YES	NO	
416 PLUS / HS	NO	NO	no CLM-4 support
435 Xtreme	NO	NO	no CLM-4 support
435 Advanced +FEM-2	NO	NO	
D21 + FEM-2	NO	NO	no CLM-4 support
ARRICAM ST/LT + LDB	NO	NO	no CLM-4 support
UMC-1	NO	NO	no CLM-4 support

¹⁾ via WCU-3 or WCU-4

²⁾ CLM-4 is directly connected to ZMU-3A, use the Special Function Mode

³⁾ UMC-3(A) with older software than Packet 04B will not drive the CLM-4 correctly

Sample Configurations



Specifications

Dimensions:

Lenght (L)	128mm (5.04 in)
Height (H)	68mm (2.68 in)
Width (W)	29mm (2.14 in)

Weight:

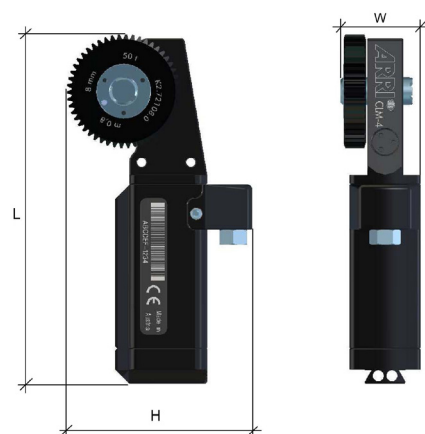
CLM-4 complete (K0.60185.0)	380g (13.4oz)
CLM-4 motor (K2.72114.0)	270g (9.5oz)
Bracket (K2.72101.0)	45g (1.6oz)
Cable (K2.72099.0)	70g (2.5oz)

Temperature range: -20 to +50°C (-4 to +122°F)

Torque: 0.5Nm (1Nm peak)

Max. Speed: 100 teeth per second
2 rotations per second

Gear wheel: 50 teeth



Declaration of Conformity

Information to the user:

Class A Statement:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



ARNOLD & RICHTER CINE TECHNIK Türkenstr. 89 D-80799 München

Phone +49 (0)89 - 3809-0 Fax +49 (0)89 - 3809-1244
www.arri.com