



ARRI TECHNICAL NOTE P - 1006

ICU/CLM-1 Reaction Speed

Summary

This note describes the Controlled Lens Motor 1 (CLM-1) reaction speed as governed by the Iris Control Unit (ICU), and how to set it.

What is the Reaction Speed?

Please note that the information in this Technical Note pertains only to the use of the CLM-1 motor with the ICU. When used with the ICU, the CLM-1 reaction speed determines how fast the CLM-1 reacts to a change in the camera's frame rate. When not used with the ICU, the CLM-1 reaction speed always defaults to the fast reaction speed.

The reaction speed is stored in the ICU, and will be set in the CLM-1 motor each time they are connected.

Which Reaction Speed Should I Use?

There are two different speed settings: fast and slow.

For most cameras, the fast reaction speed should be used. If you detect a jitter in the CLM-1 motor while the camera is running at a constant speed, or jerky motor movements during a speed change, you can change the reaction speed to slow, which will reduce these effects.

Please note that the minimum ramp duration for the slow setting is twice as long as for the fast setting. If you need a short ramp duration, use the fast setting. The minimum ramp duration for the ICU can be determined using Appendix A of the ICU manual or the ARRI Technical Note P-1014.

Setting the Reaction Speed

- Connect all cables as instructed in the ICU manual.
- Turn the ICU power off.
- To set the fast reaction speed, hold down the OPEN button while turning the ICU on.
- To set the slow reaction speed, hold down the CLOSE button while turning the ICU on.
- The SET F-STOP and NON LINEAR LEDs on the ICU will blink alternately for about 2 seconds in rapid succession if a fast reaction speed is set, and in slow succession if a slow reaction speed is set.

The last reaction speed set in the ICU will remain in ICU memory even when the ICU is turned off.

Compatibility

Lens motors with a serial number smaller than 1190 will always use the fast reaction speed, disregarding of the reaction speed setting from the ICU.

Some older ICU software does not have the capability to change the motor reaction speed. You can ask your local ARRI service center to check/upgrade the ICU's software. The ICU can change motor reaction speeds starting with software version 0210.

Cross Reference

More information related to the topics discussed above can be found in:

- ARRI Technical Note P-1003: Reverse Ramps
- ARRI Technical Note P-1014: ICU Ramp Time/Quick Setup Guide

Article Change History

May 11, 1998 Article was created.

July 31, 1998 "Setting the Reaction Speed" section has been made shorter and clearer.

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