

Lab Imaging System – Controller Commands and Responses

COMMAND	Device # = Value	Default Value	Sample COMMAND	Controller RESPONSE
FLASH Sets <i>one</i> Flash	xx = nnn # 01~08 # from 0~100	00	FLASH04=100 Sets flash 04 to 100%	FLASH04, OK
LED Sets <i>one</i> LED	xx = nnn # 01~06 # from 0~100	00	LED06=75 Sets led 06 to 75%	LED06, OK
FW Sets <i>one</i> Filter Wheel	xx = n # 01~03 4 position: #1~4 5 position: #1~5	1	FW01=2 Sets filter wheel 01 to position 2	FW01, OK
FWS Simultaneously sets <i>three</i> Filter Wheels to unique positions.	FWS = nnn		FWS=504 Sets FW01 to position 5, FW02 is ignored, FW03 to 4.	FWS, OK
AUX Activates <i>one</i> AUX SYNC port	xx = n #01~02 0 is off 1 is on	0	AUX02=1 Sets auxiliary sync port 01 to be active	AUX02, OK
ALL_FLASH ALL_LED ALL_FW ALL_AUX	Sets ALL of a DEVICE TYPE to the same value		ALL_FLASH=50 ALL_LED=25 ALL_FW=2 ALL_AUX=1	ALL_FLASH, OK ALL_LED, OK ALL_FW, OK ALL_AUX, OK
SETTINGS	Displays DEVICE / PORT SETTINGS		SETTINGS	SETTINGS ARE: FLASH01=70, TYPE CR, READY FLASH02=50, TYPE INTELLIFLASH CHARGING LED01=50 LED02=00 LED03=00 LED04=00 LED05=00 LED06=00 FW01=3, 5 POSITION FW02=1, 4 POSITION AUX01=1 AUX02=0
RESET	Resets DEVICES / PORTS to default settings		RESET	RESETTING SYSTEM... PLEASE WAIT... <settings data> RESET COMPLETE
FIRE	Simulates a SYNC		FIRE	SYNC_DETECT
ABOUT	Requests CONTROLLER Information		ABOUT	CANFIELD LIS CONTROLLER Hardware Version: <data> Serial Number: <data> Firmware Version: <data>

Error Type	Common Cause (sample command)	Controller RESPONSE
COMMAND	Mistyped command (FLASH02=50) Out of range port number (FLASH09=50)	<command> ERROR, INVALID COMMAND
PARAMETER	Mistyped parameter (FLASH02=5P) Out of range value (FW02=7)	<command> ERROR, INVALID PARAMETER
NO DEVICE	Flash or Filter Wheel not plugged into port	<command> ERROR, NO DEVICE ON PORT
NOT READY	Flash is charging or Filter Wheel is still moving to the requested position	<command> ERROR, DEVICE NOT READY

Commands to be in **CAPS** and terminate with a " !" or " \r ". Controller is recognized on a **COM** port via a USB to serial converter. Communication **Baud Rate = 38400** with **no flow control** and **no parity check**.