

To Initiate a Command:

Host Sends (ASCII Characters): “NLED11” → Device Responds: “a9” → Host Sends: “nled99” → Device Responds: “f0”

Then Host Sends(As Numbers): Command(Byte) → Data1(Byte) → Data2(Byte) → Data3(Byte) → Data4(Byte)

NOTE: Initiate commands are sent and received as ASCII characters. The command and data bytes are sent as numbers(8-bit)

Email Support@NLEDshop.com for help and any questions.

Command							
Command Name:	ID Number:	Data 1	Data 2	Data 3	Data 4	Usage	Description
Upload Configurations	1	Special, see device manual	0	0	0		Proprietary, no info available
Data Dump	3	0	0	0	0		Not for use by User, Debug command
Connect Device	4	0	0	0	0	Responds with, HardwareID → Firmware Version → Firmware Revision → Bootloader HardwareID → Bootloader Version → UserID Number	Controller responds with its hardware/firmware details
Set Pixel Packet Clone Value	10	Packet Clone Value(1-255), 0 = off	0	0	0	Only enabled on pixel controllers, sets packet clone value, could be overwritten by sequences changes, including linked sequence changes. Does not save.	For pixel controllers only, allows the packet clone feature to be started by commands. Does not save to memory.
Device Output Dimming	15	0 - 100, equals intensity percentage	0 = temporary, 1 = Save Value	0	0	Data1 indicates the percentage of intensity to apply to all the outputs. Not available on all devices.	Indicates to the controller to apply intensity control to all outputs, with the option to use the intensity temporarily or to save it, once saved it will be applied until undone.
Bulk Live Control - Hold Outputs	60	1 for on, 0 for off	1 for 16-bit Mode 0 or any for 8-bit mode	Channel Amount MSB*	Channel Amount LSB*	Once Initiated, send Channel Amount of bytes. Latches sent data values to outputs once Channel Amount has been received *Not required if device's max channels is less than 64	Starts direct live control of the outputs using bulk method. Once the command is initiated it the outputs will hold their values until updated with a full packet of bytes equal to Channel Amount
Blank Outputs, Set Live Option	61	1 for Bulk Live Control, 0 for Stall/Pause	0	0	0	Blanks(0%) all outputs, optional enter Bulk Live Control mode or Stall/Pause	While in Live Control it Blanks(set to %0) the Outputs.
Single Channel Live Control Update	62	ChanMSB	ChanLSB	ValueMSB	ValueLSB	Sets a single output channel to the specified value, puts it into per channel live control mode if not already.	Sets a single channel to live control mode and specifies the output value. Can be used concurrently with stand-alone color sequences.
Single Channel Live Control Release	63	ChanMSB	ChanLSB	0	0	Releases a single output channel from per channel live control.	Releases a single channel from live control mode back to default/stand-alone usage. Can be used concurrently with stand-alone color sequences.
Release All Live Control Channels	64	0	0	0	0	Releases all channels from per sequence live control.	Releases all output channels from live control mode. Returning them to default usage.
Dot Correction Upload	65	0	0	0	0	Send bytes equal to channel amount, values 0 – 63	For Compatible Controllers, see hardware info for details
Report Channel Values	69	Channel Number MSB	Channel Number LSB	MaxChanNumber MSB	MaxChanNumber LSB	0 values in Data1 and Data2 will report all channel values up to MaxChanNumber, 0's in Data3 & Data4 will report back a single value indicated by Chan	Reports the output values of the outputs, either a range or a single value. Max 255 bytes can be reported, if more are requested 0 will be returned
Speed Over Ride	70	New Speed MSB	New Speed LSB	0	0	Send an unsigned integer(0 to 65,535) to set the Speed for stand-alone sequences. Does not save, and a sequence change over rides	Alters the Speed for current stand-alone sequence Sent as Unsigned Integer
Speed Decrease by 1 or Value	71	0 = Subtract 1, Or Subtract 1-255	0	0	0	if Data1 is 0, it will subtract 1 from the speed, if its 1-255 it will subtract that value	Decrease the Speed by a single value, or up to 255. Affects current stand-alone sequence, does not save.
Speed Increase by 1 or Value	72	0= Add 1, Or Add 1-255	0	0	0	if Data1 is 0, it will add 1 to the speed, if its 1-255 it will add that value	Increase the Speed by a single value, or up to 255. Affects current stand-alone sequence, does not save.
Toggle Pause Device	75	0 to toggle, 1 to pause, 2 to play	1=Fade Down, 0 = None	0	0	Each Command Toggles Pause State	
Color Swap/Shift	81	0 - 6, see image for ID number	0	0	0	Send 0 to increment Color Swap Mode, or send 1 – 6 to set the mode, See image below for details	Swaps the colors based on 6 methods(including unaltered) See documentation for details. Data 2 should be 0 to run the function, or to reset Color Swap send anything but 0 in Data 2
Flash Stepping	82	1 for Forward, 0 for Backward	0	0	0	First run CMD: 80, to load the Flash setting and prepare it for Stepping Then use CMD: 82 DATA: 1 for Forwards, 0 for Backwards	
Fade Control	85	Amount MSB	Amount LSB	0	0	First run CMD: 80, to load the Cycle setting and prepare it for Control Then CMD: 85, Data1: Integer MSB, Data2: Integer LSB	Stalls a cycle pattern and waits for command to allow it to cycle a variable amount of times. Variable should be a unsigned integer. Sending 200 will let each channel cycle normally 200 times. It takes 255 x (Amount Of Frames) for a full rotation of the setting's colors. No Linked.
Select Sequence by ID Number	90	Setting Number(0-255, base zero)	0 Ignore, 1 = Idle Sequence	1 for Pause, 0 for play	0	Loads a sequence by ID indexed ID number, with mode. Start playing or start paused. Data2 with a value of 1 will start the Idle Sequence, otherwise send 0	Select a sequence by ID number
Sequence Down	91	0	0	0	0	Send command, instantly changes sequence, saves to memory	Decrement Sequence, as if the button was pressed
Sequence Up	92	0	0	0	0	Send command, instantly changes sequence, saves to memory	Increment Sequence, as if the button was pressed
Hardware Preview Sequence Upload	99	-	-	-	-	Uploads a single sequence to the controller	Proprietary, no info available
Full Upload	100	Packets to receive MSB	Packets to receive LSB	Max Sequences	0	Sends all Sequences, addresses, and index from NLED Aurora Software	Proprietary, no info available
Upload Configurations	101	Special, see device manual	0	0	0	Uploads the user selected configurations to the controller and saves them	Proprietary, no info available
Gamma Correction Upload	102					Depends on controller, contact for assistance	Uploads the optional Gamma Correction/Dot Correction Table Values
Request Configurations	120	0	0	0	0	Responds with 16 bits of device configuration flags	Asks controller to send it's current configuration flags
Reset to Default Configs	121					Instantly updates to device's configurations flags and bytes to default	Resets configuration bits and most configuration bytes to default or 0
Enter Bootloader Mode	140	0	0	0	0	Immediately after issuing command the controller will enter bootloader mode. USB connection will be dropped or stalled.	Enters device into bootloader mode, will need to close serial/USB connection and open the separate bootloader software

HotKeys	Key	Description
Quick Save	s	Saves to incrementing quicksave files
Adjust Slider Up	Right Arrow	Affects last slider that was adjusted by the user
Adjust Slider Down	Left Arrow	Affects last slider that was adjusted by the user
Close Menu or Color Picker	Escape	Closes menus and overlays
Apply Text Field Edit	Enter/Return	Confirms data entry to text fields

NLED Aurora Control v.2a
Color Swap Methods: By ID#

0: RGB

1: BRG

2: GBR

3: RBG

4: BGR

5: GRB

6: GRBW

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