

# Gemini Effects Guide

---

Rev. C - November 2019

For use with:

- o Gemini 2x1 Soft Firmware Rev B2 and later
- o Gemini 1x1 Soft Firmware Rev A0 and later



# Contents

Contents.....	1
Introduction .....	2
Interface Overview.....	2
Presets.....	2
DMX Control.....	2
Emergency! .....	3
Fire .....	3
Fireworks.....	4
Hue Burst .....	5
Lite-ning .....	6
Paparazzi .....	6
Party Lites.....	7
Pulsing (Ramp Up/Ramp Down) .....	8
Squares (Sharp Pulses).....	9
Strobe.....	10
TV/Monitor .....	11

## Introduction

The Gemini family of lights has a robust Effects Mode for creating a wide range of dynamic lighting effects. Each effect can be customized to create thousands of variations. This document provides detailed descriptions of each effect parameter and how it is accessed and controlled through the on-board user interface.

To enter Effects Mode, press the LEFT KNOB to open the main menu and scroll to EFFECTS MODE by twisting the LEFT KNOB. Press the LEFT KNOB to enter Effects mode. Within Effects mode, turn the LEFT KNOB to choose a particular effect and press the LEFT KNOB to activate the selected effect. The interface will switch to Parameter Control Mode, where you can customize the individual parameter of the selected effect.

## Interface Overview

Effect parameters are controlled and adjusted using the three knobs next to the display screen. The configuration of these controls is displayed on the interface screen. In general, the RIGHT knob will control the dimming parameter of the effect. Pressing the LEFT knob will Change Parameter Rows (when available) and turning a knob will adjust the associated parameter's value. Using these basic rules, it's very easy to dial in the exact effect you are looking for.

## Presets

Once you've configured an effect to your liking, it can be saved as a preset. First, ensure the Preset Selector is set to the A side (the light next to the "A" will be illuminated). Press and hold any of the six Preset buttons until the acknowledgement screen appears and the current effect will be saved into the selected preset location.

To recall a preset, simply press the Preset button and the effect will be recalled. Note: this will replace the current fixture configuration, so be sure to save any current settings as a separate preset before recalling.

## DMX Control

Many parameters for individual effects can be adjusted or triggered via DMX, allowing remote operation and control. For details on specific channel assignments and values, consult the **Gemini DMX Guide**.

## Emergency!

Simulates flashing lights for various types of emergency vehicles

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>PULSES</b> Select groups of 1, 2, 3, 4, 5 pulses	<b>COLORS</b> Select from: Blue; Red; Amber; Blue/Red; Blue/Amber; Blue/White; Blue/Red/White	<b>DIM</b> 0 = No Output 100 = Full Output

## Fire

Simulates a wide variety of fire effects from a match to a candle to a bonfire

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>HUE</b> Color wheel in degrees Red = 0 Green = 120 Blue = 240	<b>SAT</b> Purity of the HUE 0 = White (5600K) 100 = Pure Color	<b>DIM</b> 0 = No Output 100 = Full Output
<b>TURN</b>	<b>RATE</b> Adjust the flicker rate of the flames Eg: 1 = Slow flicker 100 = Fast flicker	<b>DEPTH</b> Adjust the range of the intensities of the flames Eg: 0 = No change in intensity 100 = Large range in intensity	
<b>PRESS</b>	Change Row	<b>COLOR MIX</b> Select how intensity affects HUE Eg: 1-CLR = Only selected HUE used NARROW = Intensity affects HUE slightly MED = Intensity affects HUE moderately WIDE = Intensity affects HUE greatly	
Notes: COLOR MIX: Larger intensities lower the HUE value RATE: Smaller values used for larger flames, larger values used for smaller flames. Ex. Candle RATE = 80 DEPTH: Smaller values used for smaller flames, larger values used for larger flames			

# Fireworks

Simulates a fireworks display

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>FREQ</b> Adjust the amount of fireworks bursts per time Eg: 0 = No bursts 50 = Medium number of bursts 100 = Large number of bursts	<b>COLORS</b> Select the colors used in the fireworks <ul style="list-style-type: none"> <li>- Red/White/Blue</li> <li>- Red/Green/Blue</li> <li>- 6-Color</li> <li>- 12-Color</li> <li>- Random</li> </ul>	<b>DIM</b> 0 = No Output 100 = Full Output
<b>PRESS</b>		<b>SUSTAIN</b> Select the fade time of the bursts  SHORT = Burst decays quickly MED = Burst decays moderately LONG = Burst decays slowly	<b>TRIG</b> Trigger the bursts manually, regardless of the FREQ setting
Notes:			

## Hue Burst

Bursts of multiple 36 millisecond pulses. Can be used to simulate muzzle flashes

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>HUE</b> Color wheel in degrees Red = 0 Green = 120 Blue = 240	<b>SAT</b> Purity of the HUE 0 = White (5600K) 100 = Pure Color	<b>DIM</b> 0 = No Output 100 = Full Output
<b>TURN</b>	<b>GAP</b> Adjust the amount of time in between pulses in a burst  Adjustment Range: 36 to 400 milliseconds	<b>OFF TIME</b> Sets the repetition rate of the bursts while in LOOP MODE	<b>QTY</b> 1 = Single pulse/burst 16 = 16 pulses/burst
<b>PRESS</b>	Change Row	<b>MODE</b> Select LOOP MODE or MANUAL MODE MANUAL MODE = TRIGGER the bursts manually LOOP MODE = Bursts repeat as determined by OFF TIME setting	<b>TRIG</b> Press to trigger the burst manually at any time

Notes:

GAP formula for muzzle flashes:  $GAP = ((1/(RPMs/60)) - 0.036) \times 1000$

Typical GAP settings for muzzle flashes:

- 833RPM = 36 GAP
- 700RPM = 50 GAP
- 600RPM = 64 GAP

## Lite-ning

Simulates lightning flashes

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>RATE</b> Adjust the speed of the undulations of the lightning intensity 1-100	<b>CCT</b> Adjust the CCT of the light output from 2700K to 6000K	<b>DIM</b> 0 = No Output 100 = Full Output
<b>PRESS</b>		<b>MODE</b> Select LOOP MODE or MANUAL MODE MANUAL MODE = Activate the lightning manually LOOP MODE = Lightning is output continuously	<b>BUMP</b> Press to activate the lightning while in MANUAL MODE
Notes:			

## Paparazzi

Simulates camera flashes

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>FREQ</b> Adjust the amount of flashes per time Eg: 0 = No flashes 100 = Large amount of flashes	<b>CCT</b> Adjust the CCT of the light output from 2700K to 6000K	<b>DIM</b> 0 = No Output 100 = Full Output
<b>PRESS</b>	<b>FLASH</b> Select the type of flash Eg: 50ms = Short flash 100ms = Med flash 150ms = Long flash BULB = Flash with decay	<b>TRIG</b> Select LOOP MODE or MANUAL MODE MANUAL MODE = Trigger a flash manually LOOP MODE = Flashes are output continuously	<b>TRIG</b> Press to trigger a color change
Notes:			

# Party Lites

Colored light changes at regular intervals to simulate club or party lighting

	LEFT	CENTER	RIGHT
<b>TURN</b>	<p><b>RATE</b> Adjust the amount of color changes per time Eg: 0 = Long time between changes 100 = Short time between changes</p>	<p><b>TYPE</b> Select the type of Lite Show PULSING = Light fades down and up between colors Chase = Light cross-fades from color to color Blend = Color is continuously output from the HUE color wheel</p>	<p><b>DIM</b> 0 = No Output 100 = Full Output</p>
<b>PRESS</b>		<p><b>COLORS</b> Select colors used in the show while in PULSING or CHASE modes</p> <ul style="list-style-type: none"> <li>- Red/White/Blue</li> <li>- Red/Green/Blue</li> <li>- 6-Color</li> <li>- 12-Color</li> <li>- Random</li> </ul>	<p><b>TRIG</b> Press to trigger a color change</p>
Notes:			



## Pulsing (Ramp Up/Ramp Down)

Light output level increases and decreases over a set period of time, creating a pulsating effect

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>HUE</b> Color wheel in degrees Red = 0 Green = 120 Blue = 240	<b>SAT</b> Purity of the HUE 0 = White (5600K) 100 = Pure Color	<b>DIM</b> 0 = No Output 100 = Full Output
<b>TURN</b>	<b>RAMP T</b> Adjust the amount of time for the pulse to ramp up The same value is used for ramp down Eg: 40 = Fast Ramp 2000 = Slow Ramp	<b>ON TIME</b> Adjust the amount of time between the end of ramp up and beginning of ramp down Eg: 25 = 25 ms before ramp down 5000 = 5 sec before ramp down	<b>OFF T</b> Adjust the amount of time between pulses while in LOOP MODE
<b>PRESS</b>	Change Row	<b>MODE</b> Select LOOP MODE or MANUAL MODE. MANUAL MODE= Trigger the Pulses manually only. LOOP MODE= Pulses repeat as determined by OFF T setting.	<b>TRIG</b> Press to trigger the pulses manually at any time
Notes:			

## Squares (Sharp Pulses)

Alternate the light output level between a high and low value either on a regular interval or when triggered manually - this creates very abrupt changes in light level output

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>HUE</b> Color wheel in degrees Red = 0 Green = 120 Blue = 240	<b>SAT</b> Purity of the HUE 0 = White (5600K) 100 = Pure Color	<b>DIM</b> 0 = No Output 100 = Full Output
<b>TURN</b>	<b>ON TIME</b> Adjust the pulse duration in milliseconds Eg: 30 = 30 ms pulse 5000 = 5 sec pulse	<b>OFF TIME</b> Adjust the amount of time between pulses Eg: 30 = 30 ms OFF TIME 5000 = 5 sec OFF TIME	<b>BIAS</b> Adjust the light output level while between pulses
<b>PRESS</b>	Change Row	<b>MODE</b> Select LOOP MODE or MANUAL MODE  MANUAL MODE = Activate the pulses with BUMP Only LOOP MODE = Pulses repeat as determined by OFF TIME setting	<b>BUMP</b> Press to activate the pulses manually at any time
Notes:			

# Strobe

Momentarily increase the light output level on a regular interval, for a flashing effect

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>HUE</b> Color wheel in degrees Red = 0 Green = 120 Blue = 240	<b>SAT</b> Purity of the HUE 0 = White (5600K) 100 = Pure Color	<b>DIM</b> 0 = No Output 100 = Full Output
<b>TURN</b>	<b>RPM</b> Adjust the ON/OFF RATE Eg: 30 = 30 RPM (.5HZ) 1000 = 1000 RPM (16.7HZ)	<b>DUTY</b> Ratio of ON-TIME vs OFF-TIME Eg: 40 = 40% ON, 60% OFF 60 = 60% ON, 40% OFF	<b>BIAS</b> Adjust the light output level while between pulses
<b>PRESS</b>	Change Row	<b>MODE</b> Select LOOP MODE or MANUAL MODE  MANUAL MODE = Activate the pulses with BUMP Only LOOP MODE = Pulses repeat as determined by OFF TIME setting	<b>BUMP</b> Press to activate the pulses manually at any time

**Notes:**

The DUTY setting can be used to create non-symmetrical flashing patterns where the light is, for example, ON for a very short portion of each time interval and OFF for a longer portion. This allows very precise control of the flash pattern.

## TV/Monitor

Simulates the varying light and color output of a Television or Computer Monitor

	LEFT	CENTER	RIGHT
<b>TURN</b>	<b>RATE</b> Adjust the amount of Scene Changes per time 0 = No Scene Changes 100 = Frequent Scene Changes	<b>MOTION</b> Adjust the amount of variations within a scene 0 = No variations 100 = Frequent variations	<b>DIM</b> 0 = No Output 100 = Full Output
<b>PRESS</b>	<b>RANGE</b> Set the amount of variation (+- Green) due to Scene Changes or MOTION SML – Small MED – Medium LRG – Large	<b>CCT</b> Select the general CCT of the effect. WARM= Less than 3800K NEUT= 3800K < CCT < 4900K COOL= > 4900K	<b>TRIG</b> Press to trigger a Scene Change at any time
Notes:			