



Features

- > New vehicle design integration
- > Single, Split, Dual and Tri-Color capability
- > 6, 9, 12 and 18 LED counts
- > Steady-burn white capability
- > Separate color control capability
- > Secondary function can be either flashing or steady-burn

Configurable Feature

- > nFORCE is the only perimeter lighting product line on the market that can be specifically tailored to your unique requirements.

Deck/Grille Mount Light



Single

- | | |
|---|---------------|
| 6 LED, Solid or Split Colors | #ENFSGS1(x) |
| 9 LED, Solid Colors | #ENFSGS2(x) |
| 9 LED, Solid Color - Amber, High Output | #ENFSGS2A-PC |
| 9 LED, Solid Colors - Amber, Blue, Red or White, Xylex Lens and ECE R65 | #ENFSGE2(x) |
| 12 LED, Solid or Dual Colors | #ENFSGS3(x) |
| 18 LED, Tri Colors - Blue/Red/Amber or Blue/Red/White | #ENFSGS4(xxx) |







Dual Side-by-Side















- | | |
|---|---------------|
| 6 LED, Solid or Split Colors | #ENFDGS1(xx) |
| 9 LED, Solid Colors | #ENFDGS2(xx) |
| 9 LED, Solid Color - Amber/Amber, High Output | #ENFDGS2AA-PC |
| 9 LED, Solid Colors - Amber/Amber, Blue/Amber, Blue/Blue or Red/Red, Xylex Lens and ECE R65 | #ENFDGE2(xx) |
| 12 LED, Solid or Dual Colors | #ENFDGS3(xx) |
| 18 LED, Tri Colors - Blue/Red/Amber or Blue/Red/White | #ENFDGS4(xxx) |

Technical Specifications

FLASH PATTERNS	12 Single color patterns, 14 Dual or 14 Tri-color patterns	
INPUT VOLTAGE	10-16 Vdc standard or 10-30 Vdc (custom order)	
CURRENT DRAW PER MODULE	10-16 VDC	10-30 VDC (custom order)
6 LED Single Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
6 LED Split Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
9 LED Single Color	< 1.5 Amps @ 12.8Vdc	< 0.9 Amps @ 25.6Vdc
12 LED Single Color	< 2.0 Amps @ 12.8Vdc	< 1.2 Amps @ 25.6Vdc
12 LED Split Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
18 LED Tri-Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
LIGHT SYNC	24 single lightheads	
OPERATING TEMPERATURE	-40° C to +65° C / -40° F to +149° F	
DIMENSIONS	Single: 5.0" (12.7 cm) L x 1.88" (4.7 cm) H x 1.82 (4.3 cm) D Dual: 9.50" (24.1 cm) L x 1.88" (4.7 cm) H x 1.82" (4.3 cm) D	
CERTIFICATIONS	SAE J595, Class 1 certified; CA Title 13, Article 22 compliant; EMC 72/245/EEC certified; and ECE R65, Category X, Class 2 certified (ECE R65 can only be specified with 9 LED solid color)	
WARRANTY	Five-year	


Replace (x), (xx) or (xxx) in the Order Number for Standard Color Selection


Solid Colors: A =  B =  R =  W = 


Dual Colors: D =   E =   F =   J or JJ =   Tri-Colors: BRA =    BRW =   


Single		Dual Side-by-Side	
Solid Colors	(x) = A, B, R or W	Solid Colors	(xx) = AA, AW, BA, BB, BW, RA, RB, RR or RW
6 LED Split Colors	(x) = J	6 LED Split Colors	(xx) = JJ
9 LED Solid Colors	(x) = A, B, R or W	9 LED Solid Colors	(xx) = A, B, R or W
12 LED Dual Colors	(x) = D, E, F or J	12 LED Dual Colors	(xx) = JJ
18 LED Tri-Colors	(xxx) = BRA (blue/red/amber) or BRW (blue/red/white)	18 LED Tri-Colors	(xxx) = BRA (blue/red/amber) or BRW (blue/red/white)


Module LED Color Patterns


6 LED Solid: 

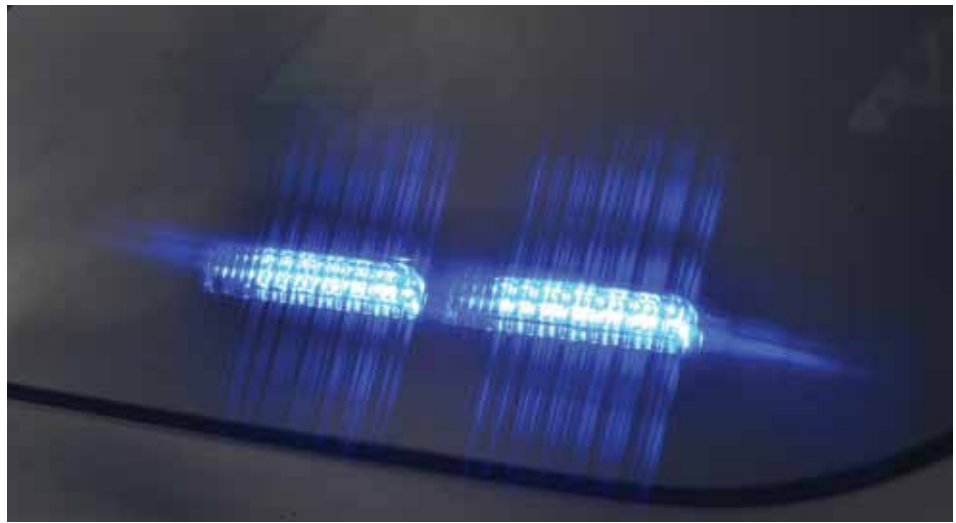
6 LED Split: 

9 LED Solid: 

12 LED Solid: 

12 LED Dual: 

18 LED Tri-Color: 





Deck/Grille Mounts

Features

- > New vehicle design integration
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Configurable Feature

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Single

- 6 LED, Solid or Split Colors **#ENFSGS1(x)**
- 9 LED, Solid Colors **#ENFSGS2(x)**
- 9 LED, Solid Color - Amber, High Output **#ENFSGS2A-PC**
- 9 LED, Solid Colors - Amber, Blue, Red or White, Xylex Lens and ECE R65 **#ENFSGE2(x)**
- 12 LED, Solid or Dual Colors **#ENFSGS3(x)**
- 18 LED, Tri Colors - Blue/Red/Amber or Blue/Red/White **#ENFSGS4(xxx)**







Dual Side-by-Side







- 6 LED, Solid or Split Colors **#ENFDGS1(xx)**
- 9 LED, Solid Colors **#ENFDGS2(xx)**
- 9 LED, Solid Color - Amber/Amber, High Output **#ENFDGS2AA-PC**
- 9 LED, Solid Colors - Amber/Amber, Blue/Amber, Blue/Blue or Red/Red, Xylex Lens and ECE R65 **#ENFDGE2(xx)**
- 12 LED, Solid or Dual Colors **#ENFDGS3(xx)**
- 18 LED, Tri Colors - Blue/Red/Amber or Blue/Red/White **#ENFDGS4(xxx)**

Technical Specifications

FLASH PATTERNS	12 Single color patterns, 14 Dual or 14 Tri-color patterns	
INPUT VOLTAGE	10-16 Vdc standard or 10-30 Vdc (custom order)	
CURRENT DRAW PER MODULE	10-16 VDC	10-30 VDC (custom order)
6 LED Single Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
6 LED Split Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
9 LED Single Color	< 1.5 Amps @ 12.8Vdc	< 0.9 Amps @ 25.6Vdc
12 LED Single Color	< 2.0 Amps @ 12.8Vdc	< 1.2 Amps @ 25.6Vdc
12 LED Split Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
18 LED Tri-Color	< 1.0 Amp @ 12.8Vdc	< 0.6 Amps @ 25.6Vdc
LIGHT SYNC	24 single lightheads	
OPERATING TEMPERATURE	-40° C to +65° C / -40° F to +149° F	
DIMENSIONS	Single: 5.0" (12.7 cm) L x 1.88" (4.7 cm) H x 1.82 (4.3 cm) D Dual: 9.50" (24.1 cm) L x 1.88" (4.7 cm) H x 1.82" (4.3 cm) D	
CERTIFICATIONS	SAE J595, Class 1 certified; CA Title 13, Article 22 compliant; EMC 72/245/EEC certified; and ECE R65, Category X, Class 2 certified (ECE R65 can only be specified with 9 LED solid color)	
WARRANTY	Five-year	

Replace (x), (xx) or (xxx) in the Order Number for Standard Color Selection

Solid Colors: A=  B=  R=  W= 

Dual Colors: D=  E=  F=  J or JJ=  Tri-Colors: BRA=  BRW= 

Single

Solid Colors (x) = A, B, R or W
 6 LED Split Colors (x) = J
 9 LED Solid Colors (x) = A, B, R or W
 12 LED Dual Colors (x) = D, E, F or J
 18 LED Tri-Colors (xxx) = BRA (blue/red/amber) or BRW (blue/red/white)

Dual Side-by-Side

Solid Colors (xx) = AA, AW, BA, BB, BW, RA, RB, RR or RW
 6 LED Split Colors (xx) = JJ
 9 LED Solid Colors (xx) = A, B, R or W
 12 LED Dual Colors (xx) = JJ
 18 LED Tri-Colors (xxx) = BRA (blue/red/amber) or BRW (blue/red/white)

Module LED Color Patterns

6 LED Solid: 
 6 LED Split: 
 9 LED Solid: 
 12 LED Solid: 
 12 LED Dual: 
 18 LED Tri-Color: 





PATTERN LIST

1 COLOR MODULE PATTERNS		
# COLORS	NUMBER	NAME
1	1	QUINT
	2	WARP
	3	INTER-CYCLE
	4	DOUBLE
	5	QUAD
	6	POWER PULSE
	7	ROAD RUNNER
	8	Q-SWITCH
	9	STEADY-BURN DRIVER ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)
	10	STEADY-BURN DRIVER TITLE 13 QUAD (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: TITLE 13 QUAD)
	11	QUAD 2
	12	DOUBLE 2

2 COLOR MODULE PATTERNS		
# COLORS	NUMBER	NAME
2	1	QUINT
	2	WARP
	3	INTER-CYCLE
	4	DOUBLE
	5	QUAD
	6	POWER PULSE
	7	ROAD RUNNER
	8	Q-SWITCH
	9	STEADY-BURN DRIVER ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)
	10	STEADY-BURN DRIVER TITLE 13 QUAD (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: TITLE 13 QUAD)
	11	QUAD 2
	12	DOUBLE 2
1	13	QUINT
	14	WARP
	15	INTER-CYCLE
	16	DOUBLE
	17	QUAD
	18	POWER PULSE
	19	ROAD RUNNER
	20	Q-SWITCH
	21	STEADY-BURN DRIVER ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)
	22	STEADY-BURN DRIVER TITLE 13 QUAD (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: TITLE 13 QUAD)
	23	QUAD 2
	24	DOUBLE 2

3 COLOR MODULE PATTERNS		
# COLORS	NUMBER	NAME
3	1	QUINT
	2	WARP
	3	INTER-CYCLE
	4	DOUBLE
	5	QUAD
	6	POWER PULSE
	7	ROAD RUNNER
	8	Q-SWITCH
	9	STEADY-BURN DRIVER ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)
	10	STEADY-BURN DRIVER TITLE 13 QUAD (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: TITLE 13 QUAD)
	11	QUAD 2
	12	DOUBLE 2
2	13	QUINT
	14	WARP
	15	INTER-CYCLE
	16	DOUBLE
	17	QUAD
	18	POWER PULSE
	19	ROAD RUNNER
	20	Q-SWITCH
	21	STEADY-BURN DRIVER ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)
	22	STEADY-BURN DRIVER TITLE 13 QUAD (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: TITLE 13 QUAD)
	23	QUAD 2
	24	DOUBLE 2

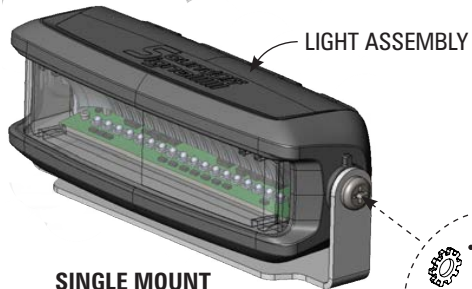
⚠ WARNING
 This product contains high intensity LED devices.
 To prevent eye damage, DO NOT stare into the
 light beam at close range.



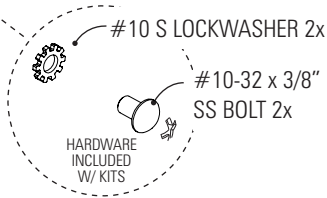


SAE J595 CLASS 1 DECK/ GRILL MOUNTS

ENFSGS(XXX) - SINGLE
ENFDGS(XXX) - DUAL

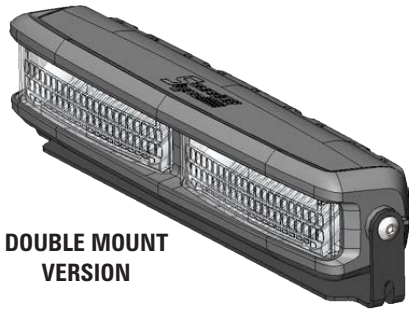


SINGLE MOUNT VERSION



TECHNICAL SPECIFICATIONS		
DECK/ GRILL MOUNT nFORCE		
Single Mount Dimensions:	5.0"L x 1.88"H x 1.82"D	
Double Mount Dimensions:	9.50"L x 1.88"H x 1.82"D	
Input Voltage:	10 - 16 Vdc or 10 - 30 Vdc *	
CURRENT CONSUMPTION PER MODULE		
	10-16 Vdc	10-30 Vdc *
6 LED Single 12 LED Dual & 18 LED Tri-Color	<1.0A @12.8 Vdc	<0.6A @25.6 Vdc
9 LED Single Color	<1.5A @ 12.8 Vdc	<0.9A @ 25.6 Vdc
12 LED Single Color	<2.0A @12.8 Vdc	<1.2A @ 25.6 Vdc

* - Special Order



DOUBLE MOUNT VERSION

⚠ WARNING

- HIGH CURRENT interconnects must be properly terminated. Poor crimp quality can cause heat build-up and fire. Follow crimp connector manufacturer instructions.
- DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to vehicle Owner's Manual for deployment zones.
- Unit may become hot to touch during normal operation.
- Failure to properly install connectors, fuses or wiring may cause vehicle failure or fire.
- Installation must only be performed by trained technician. Installer must determine vehicle wiring configuration and proper integration of system.
- Use proper wire gauge. All power wires connecting to positive (+) or negative (-) battery terminal or local chassis ground (-) must be sized to supply at least 125% of max. current and properly fused at power source.
- Install protective grommets when routing wire through firewall or metal.



INSTALLATION:

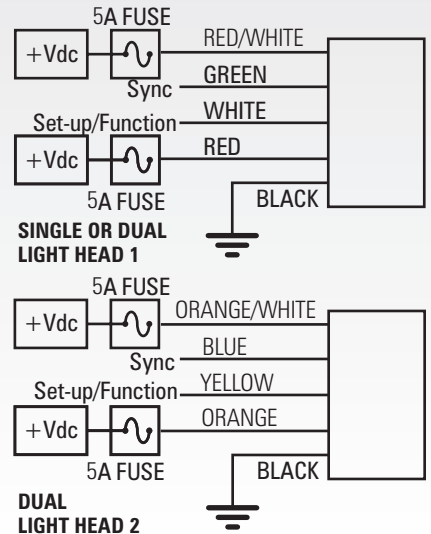
1) Establish a flat position on the vehicle. Drill 3/16" holes in the center of the mounting locations. Note: 2 bolts are desired for the single mount and 4 bolts for the double mount attachments (not included with hardware kit).

INFORMATION FOR nFORCE SECONDARY:

WIRE HOOK-UP TABLE	
WIRE COLOR:	FUNCTION:
ORANGE OR RED	Power
BLACK	Ground
BLUE OR GREEN**	Sync2 *
YELLOW OR WHITE to GROUND	Wire Function -See page 4-
YELLOW OR WHITE to POWER	Function Wire
RED/WHITE OR ORANGE/WHITE	Power

** To sync multiple nFORCE lights, connect the Green and/or Blue wires from each light together.

* Will NOT work w/ other sync products such as Ghost, LED3, & Intersector.





OVER-VOLTAGE PROTECTION

When an over-voltage condition is detected, the module will flash an over-voltage warning pattern of 50mS ON/950mS OFF to alert of the over-voltage condition and protect the electronics from damage due to heat/voltage.

THERMAL COMPENSATION PROTECTION

The LED module is designed to provide maximum power output while providing protection to the electronic components by reducing the output power at extreme temperatures.

SYNC 2

Syncronizing the flashing of multiple light modules is accomplished by connecting the Green and/or Blue wires of different light modules together. Up to 24 light modules can be connected for synchronized flashing. All light module flash patterns must be set to the same flash pattern # to ensure proper operation. Refer to the Sequence Type section in Set-Up Table to setup light modules to flash in alternate or simultaneous flash pattern. NOTE: Will NOT work with non-Sync 2 products such as Ghost, LED3, and Single Color Intersector.

FLASH PATTERNS			
PATTERN #	SINGLE COLOR	DUAL COLOR	TRI-COLOR
1		QUINT	
2		WARP	
3		INTER-CYCLE	
4		DOUBLE	
5		QUAD	
6		POWER PULSE	
7		ROAD RUNNER	
8		Q-SWITCH	
9		STEADY-BURN / ROADRUNNER (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: ROADRUNNER)	
10		STEADY-BURN DRIVER TITLE 13 QUAD (SEQUENCE TYPE 1: STEADY BURN, SEQUENCE TYPE 2: TITLE 13 QUAD)	
11		QUAD 2	
12		DOUBLE 2	
13			RANDOM 1
14			RANDOM 2



FUNCTION TABLES

Changing the function table is only enabled when the LED module is in a flashing mode (disabled in cruise or steady ON functions). The functional operation of the LED module can be changed while applying the +V to the Red or Orange wire with the black wire connected to ground. When the light is flashing, momentarily connect the White or Yellow wire to ground for >4S and <5S (light will go steady high, steady low, off, steady high, steady low) then release. The function table will now advance to the next table (table 1 to table 2, table 2 to table 3, or table 3 to table 1). Repeat above process until required function table is active.

FUNCTION TABLE 1					
WIRE			LIGHT		
RED (SGL) ORANGE (DUAL)	R/W (SGL) O/W (DUAL)	WHT (SGL) YELLOW (DUAL)	SINGLE	DUAL	TRI
+12V			FLASH	FLASH DUAL	FLASH TRI
	+12		CRUISE	STEADY CLR 2	STEADY CLR 3
+12V	+12V		FLASH	STEADY CLR 2	STEADY CLR 3
		+12V	NO OP	NO OP	NO OP
+12V		+12V	LOW PWR FLASH	FLASH CLR 1	FLASH CLR 1
	+12V	+12V	CRUISE	FLASH CLR 2	FLASH CLR 2
+12V	+12V	+12V	LOW PWR FLASH	FLASH CLR 1 & 2	FLASH CLR 3

FUNCTION TABLE 2					
WIRE			LIGHT		
RED (SGL) ORANGE (DUAL)	R/W (SGL) O/W (DUAL)	WHT (SGL) YELLOW (DUAL)	SINGLE	DUAL	TRI
+12V			FLASH	FLASH CLR 1	FLASH CLR 1 & 2
+12V		+12V	CRUISE	FLASH CLR 1 & 2	FLASH CLR 1, 2 & 3
	+12V		STEADY CLR 1	STEADY CLR 2	STEADY CLR 3
	+12V	+12V	STEADY CLR 1	STEADY CLR 2	STEADY CLR 3
+12V	+12V	+12V	STEADY CLR 1	STEADY CLR 2	STEADY CLR 3
		+12V	NO OP	NO OP	NO OP

FUNCTION TABLE 3					
WIRE			LIGHT		
RED (SGL) ORANGE (DUAL)	R/W (SGL) O/W (DUAL)	WHT (SGL) YELLOW (DUAL)	SINGLE	DUAL	TRI
+12V			FLASH	FLASH DUAL	FLASH CLR 1, 2 & 3
	+12V		FLASH LOW PWR	FLASH CLR 1 & 2 LOW PWR	FLASH CLR 1, 2 & 3 LOW PWR
+12V	+12V		FLASH LOW PWR	FLASH COLOR 1 & 2 LOW PWR	FLASH CLR 1, 2 & 3 LOW PWR
		+12V	NO OP	NO OP	NO OP
+12V		+12V	FLASH LOW PWR	FLASH COLOR 1 & 2 LOW PWR	FLASH CLR 1, 2 & 3 LOW PWR
	+12V	+12V	FLASH LOW PWR	FLASH COLOR 1 & 2 LOW PWR	FLASH CLR 1, 2 & 3 LOW PWR
+12V	+12V	+12V	FLASH LOW PWR	FLASH COLOR 1 & 2 LOW PWR	FLASH CLR 1, 2 & 3 LOW PWR



COLOR SWAP

This function is only valid for dual and tri-color light modules and can only be changed when the light module is in a flashing mode (disabled for single color modules and when light module is operating in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >2S and <3S (light will go steady high, steady low, off) then release. The light module will switch between Color Swap OFF and Color Swap ON. When Color Swap is OFF, the 1st color will flash 1st on a dual/tri color pattern. When Color Swap is ON, the 2nd color will flash 1st on a dual/tri color pattern.

SIMULTANEOUS/ALTERNATE

This function can only be changed when the LED module is in a flashing mode (disabled in cruise or steady ON functions) and only has an effect when at least 2 LED modules have the green sync wire connected together. When the light is flashing, momentarily connect the white or yellow wire to ground for >3S and <4S (light will go steady high, steady low, off, steady high) then release. The light module will switch between Simultaneous and Alternate each time this sequence is done. To have light modules flash simultaneously, both light modules need to be set to the same sequence type (Set-Up Table). To have light modules flash alternately, the light modules need to be set to different sequence types (Set-Up Table).

ADVANCE PATTERN

Flash pattern can only be changed when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >250mS and <1S (light will go steady high) then release. The flash pattern will advance to the next pattern. If the light module was at the last pattern, the pattern will reset to the 1st pattern.

BACKUP PATTERN

This function is only valid when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >1S and < 2S (light will go steady high, steady low) then release. The flash pattern will backup to the previous pattern. If the light module was at the first pattern, the pattern will change to the last pattern on the list.

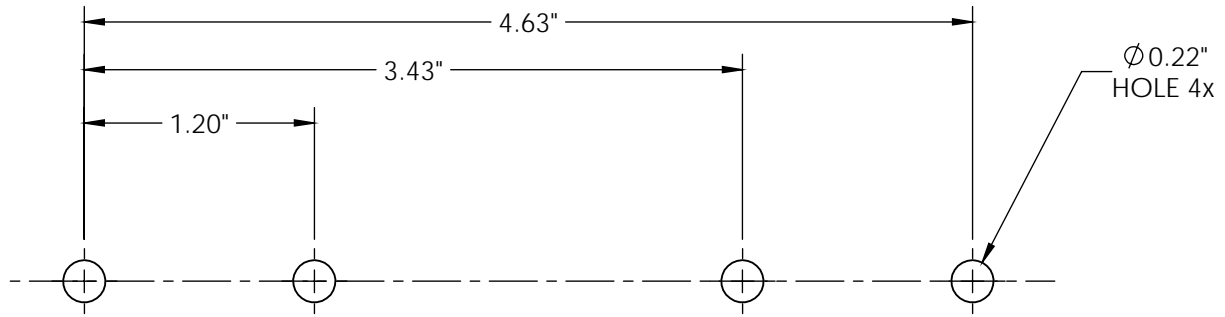
PATTERN RESET

This function is only valid when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >5S and <6S (light will go steady high, steady low, off, steady high, steady low, off) then release. The flash pattern will reset to the 1st pattern in the list.

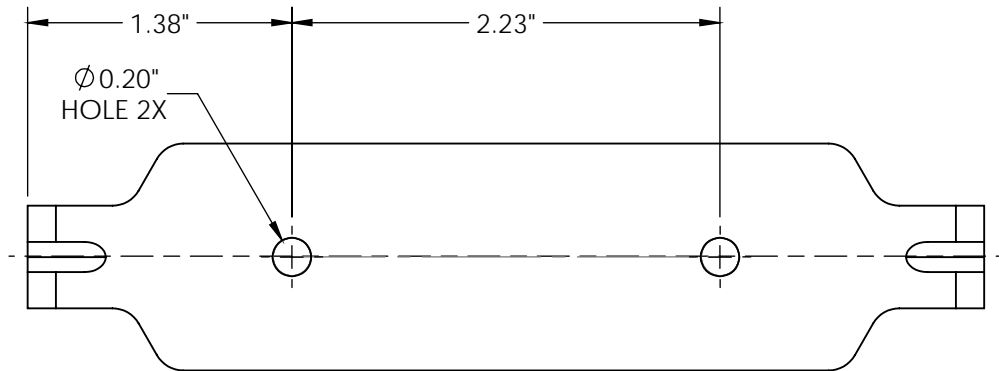
FACTORY RESET

This function is only valid when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >6S and <7S (light will go steady high, steady low, off, steady high, steady low, off, steady high) then release. The LED module will reset to: pattern=1, Function Table=1, Color Swap=OFF, Simultaneous.

SETUP TABLE			
SECONDS		USER INTERFACE	
FROM	TO	VISUAL FEEDBACK	ACTION TAKEN
0	1	STEADY-HIGH (60%)	FORWARD ONE PATTERN
1	2	STEADY-LOW (30%)	BACKWARD ONE PATTERN
2	3	OFF	COLOR SWAP (OFF OR ON)
3	4	STEADY - HIGH (60%)	SEQUENCE TYPE: SIMULTANEOUS OR ALTERNATE
4	5	STEADY - LOW (30%)	SEE FUNCTION TABLE
5	6	OFF	RESET TO PATTERN 1
6	7	STEADY-HIGH (60%)	FACTORY RESET (PATTERN 1, COLOR SWAP: OFF, SIMULTANEOUS) SEPARATE COLOR CONTROL: OFF
If held longer than 7 seconds, the light will go back to flashing the current pattern and no action will be taken.			



DOUBLE MOUNT DECK/ GRILLE TEMPLATE



SINGLE MOUNT DECK/ GRILLE TEMPLATE



REMOTE MODE: FOR USE WITH bluePRINT SYSTEM ONLY

Connecting the Green or Blue wire to ground before applying power to the Orange, Orange/White, Red or Red/White wires will place the LED module into remote mode and the light output color will be directly controlled by the input wires as shown below.

For Cruise mode or Low Power control of the LED module, the signal to the control wires must be 100 +/- 2Hz using the duty cycle inputs listed below to produce the light output.

nFORCE Secondary LED Light Remote Mode Functionality							
Red or Orange Wire	Red/Wht or Orange/ Wht Wire	Single Color		Dual Color		Tri Color	
		Color Swap=OFF	Color Swap=ON	Color Swap=OFF	Color Swap=ON	Color Swap=OFF	Color Swap=ON
Cruise	-	Cruise Color 1		Cruise Color 1	Cruise Color 2	Cruise Color 1	Cruise Color 2
-	Cruise			Cruise Color 2	Cruise Color 1	Cruise Color 2	Cruise Color 1
Cruise	Cruise			Cruise Color 2	Cruise Color 1	Cruise Color 3	Cruise Color 3
Flash	-	Flash Color 1		Flash Color 1	Flash Color 2	Flash Color 1	Flash Color 2
-	Flash			Flash Color 2	Flash Color 1	Flash Color 2	Flash Color 1
Flash	Flash			Flash Color 2	Flash Color 1	Flash Color 3	Flash Color 3
Steady ON	-	Steady ON Color 1		Steady ON Color 1	Steady ON Color 2	Steady ON Color 1	Steady ON Color 2
-	Steady ON			Steady ON Color 2	Steady ON Color 1	Steady ON Color 2	Steady ON Color 1
Steady ON	Steady ON			Steady ON Color 2	Steady ON Color 1	Steady ON Color 3	Steady ON Color 3
Cruise	Flash			Flash Color 2/Cruise Color 1 during OFF cycle of Flash	Flash Color 1/Cruise Color 2 during OFF cycle of Flash		
Cruise	Steady ON			Steady ON Color 2	Steady ON Color 1		
Flash	Steady ON			Steady ON Color 2	Steady ON Color 1		

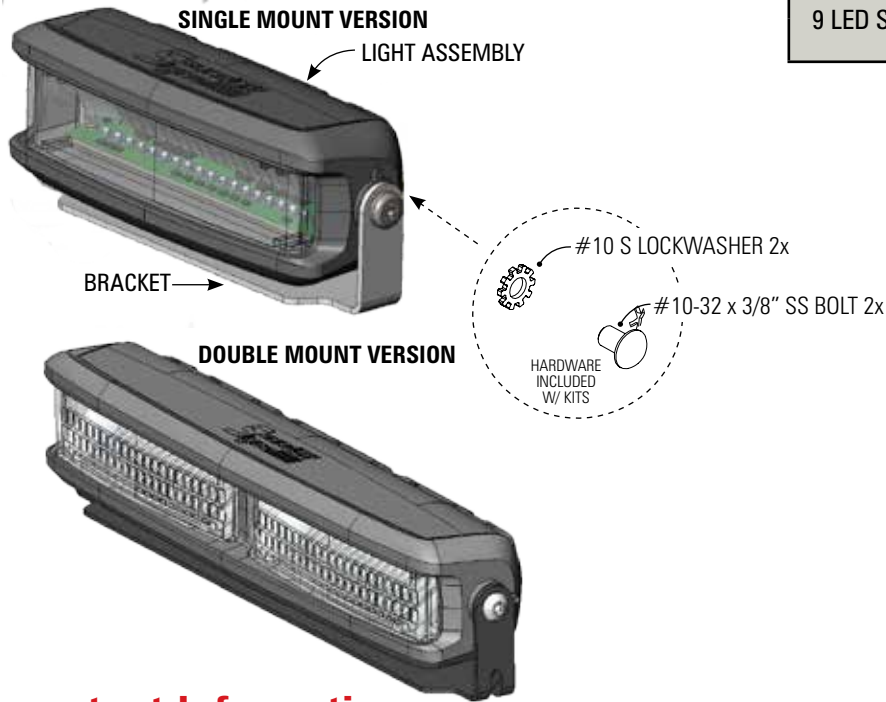
Cruise Mode Duty Cycle (@ 100Hz)	
Input	Light Output
40%	OFF
50%	5%
60%	10%

Low Power Flash D.C. (@ 100Hz)	
Input	Light Output
70%	30%
80%	40%
90%	50%

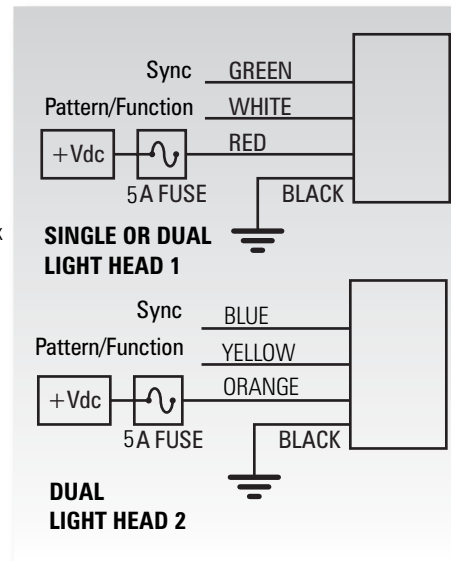


ECE-R65 CLASS 2 CERTIFIED DECK/ GRILLE MOUNT

- ENFSGE(xx) - SINGLE DECK/GRILLE
- ENFDGE(xx) - DUAL DECK/GRILLE
- ENFSLSGE - SINGLE DECK/GRILLE
- ENFSLDGE - DUAL DECK/GRILLE



TECHNICAL SPECIFICATIONS	
DECK/ GRILL MOUNT NEXUS	
Single Mount Dimensions:	5.0"L x 1.88"H x 1.82"D
Double Mount Dimensions:	9.50"L x 1.88"H x 1.82"D
Input Voltage:	10 - 30 Vdc per module
CURRENT CONSUMPTION PER MODULE	
9 LED Single Color	<1.6A @ 12.8 Vdc
	<0.9A @ 25.6 Vdc



INSTALLATION: DECK/GRILLE MOUNT

- Establish a flat position on the vehicle. Drill 3/16" holes in the center of the mounting locations. Note: 2 bolts are desired for the single mount and 4 bolts for the double mount attachments (not included with hardware kit). See page 2 for hole spacing.

INFORMATION FOR NEXUS SECONDARY:

WIRE HOOK-UP TABLE		
WIRE COLOR:	LIGHT HEAD	FUNCTION:
RED	1	Power
BLACK	1	Ground
**GREEN	1	Sync2 *
WHITE	1	To Ground: Pattern Select/ Setup
		By Night Feature See page 2
ORANGE	2	Power
BLACK	2	Ground
BLUE	2	Sync 2*
YELLOW	2	To Ground: Pattern Select/ Setup
		By Night Feature See page 2

** To sync multiple Single NForce™ lights, connect the Green wires from each light together. *To sync individual Dual nForce lights connect the Green & Blue wires together.

* Will NOT work w/ other sync products such as Ghost, LED3, & Interceptor.

Important Information:

- Warning devices are strictly regulated and governed by Federal, State and Municipal ordinances. These devices shall be used ONLY on approved vehicles. It is the sole responsibility of the user of these devices to ensure compliance.
- DO NOT connect this device to a strobe power supply. This product is self-contained and does not require an external power supply.

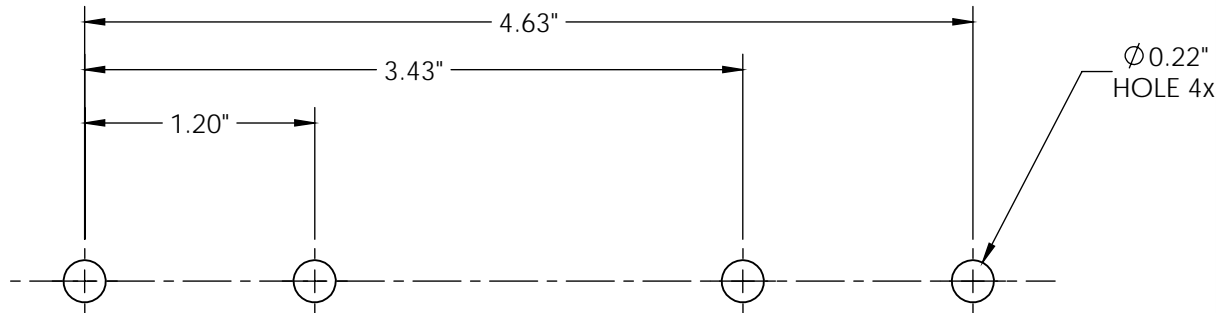


Warning devices are strictly regulated and governed by Federal, State and Municipal ordinances. These devices shall be used ONLY on approved vehicles. It is the sole responsibility of the user of these devices to ensure compliance.

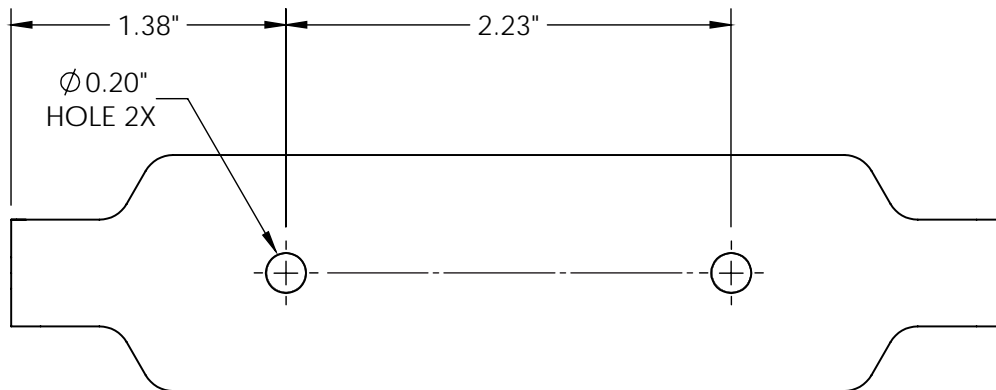
IMPORTANT INFORMATION:



PATTERNS	
NUMBER	NAME
1	SINGLE
2	DOUBLE
3	TRIPLE



DOUBLE MOUNT DECK/ GRILLE TEMPLATE



DECK/ GRILLE TEMPLATE



PATTERN SELECT & SYNC CONFIGURATION INSTRUCTIONS

Connecting the WHITE wire to power will allow you to use the **By Night** feature on your Single Nexus Secondary Light. Connecting the YELLOW wire to power will allow you to use the **By Night** feature on your Dual Nexus Secondary Light.

BY NIGHT FEATURE:

- Reduced intensity for night time use
- Apply power to white wire for single lights. Apply power to white and yellow wire for dual lights.

BY DAY FEATURE:

- Standard intensity for day time use
- Leave white wire floating for single lights. Leave yellow wire floating for dual lights.

SETUP LIGHTS:

- To sync multiple Single nForce lights, connect the green wires together. To sync multiple Dual nForce lights, connect the blue and green wires together.

Simultaneous or Alternate Function

- 1 or 2. The modules will flash simultaneously if they are set to the same number. The modules will have an alternate flash if set to different numbers.*

Touching the WHITE wire to the ground will allow you to change various setting on a SINGLE or first DUAL nForce Light.

Touching the YELLOW wire to the ground will allow you to change various setting on the second DUAL nForce Light.

SETUP TABLE

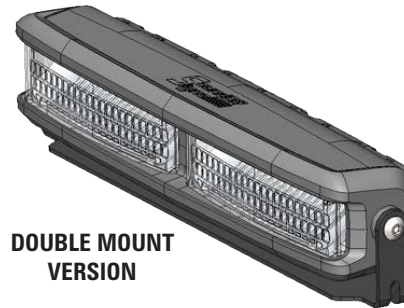
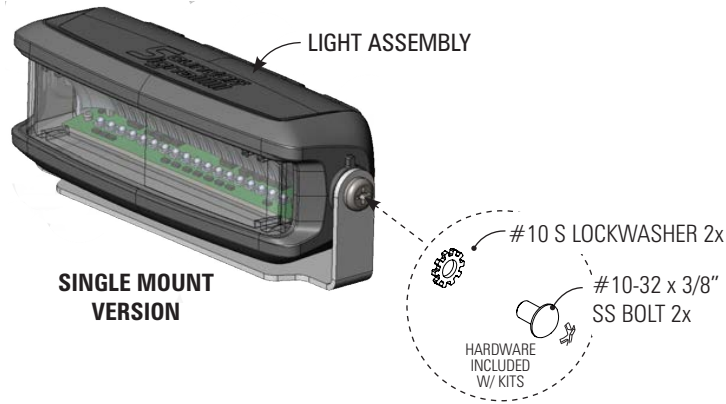
SECONDS		USER INTERFACE	
FROM	TO	VISUAL FEEDBACK	ACTION TAKEN
0	1	STEADY-HIGH (60%)	FORWARD ONE PATTERN
1	2	STEADY-LOW (30%)	BACKWARD ONE PATTERN
2	3	OFF	NA
3	4	STEADY - HIGH (60%)	SIMULTANEOUS OR ALTERNATE
4	5	STEADY - LOW (30%)	NA
5	6	OFF	RESET TO PATTERN 1

If held longer than 6 seconds, the light will go back to flashing the current pattern and no action will be taken.



ECE-R65 CLASS 2 CERTIFIED DECK/ GRILLE MOUNT

ENFSGE(xx) - SINGLE DECK/GRILLE
 ENFDGE(xx) - DUAL DECK/GRILLE



TECHNICAL SPECIFICATIONS	
DECK/ GRILL MOUNT nFORCE	
Single Mount Dimensions:	5.0"L x 1.88"H x 1.82"D
Double Mount Dimensions:	9.50"L x 1.88"H x 1.82"D
Input Voltage:	10 - 30 Vdc per module
CURRENT CONSUMPTION PER MODULE	
9 LED Single Color	< 1.6A @ 12.8 Vdc
	< 0.9A @ 25.6 Vdc

⚠ WARNING

- HIGH CURRENT interconnects must be properly terminated. Poor crimp quality can cause heat build-up and fire. Follow crimp connector manufacturer instructions.
- DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to vehicle Owner's Manual for deployment zones.
- Unit may become hot to touch during normal operation.
- Failure to properly install connectors, fuses or wiring may cause vehicle failure or fire.
- Installation must only be performed by trained technician. Installer must determine vehicle wiring configuration and proper integration of system.
- Use proper wire gauge. All power wires connecting to positive (+) or negative (-) battery terminal or local chassis ground (-) must be sized to supply at least 125% of max. current and properly fused at power source.
- Install protective grommets when routing wire through firewall or metal.



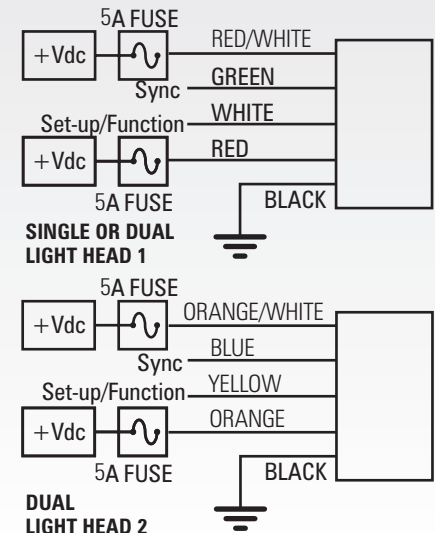
INSTALLATION:

- 1) Establish a flat position on the vehicle. Drill 3/16" holes in the center of the mounting locations. Note: 2 bolts are desired for the single mount and 4 bolts for the double mount attachments (not included with hardware kit). See page 4 for hole spacing.

INFORMATION FOR nFORCE SECONDARY:

WIRE HOOK-UP TABLE	
WIRE COLOR:	FUNCTION:
ORANGE OR RED	Power
BLACK	Ground
BLUE OR GREEN**	Sync2 *
YELLOW OR WHITE to GROUND	Wire Function -See page 2-
YELLOW OR WHITE to POWER	Function Wire
RED/WHITE OR ORANGE/WHITE	Power

- ** To sync multiple nFORCE lights, connect the Green and/or Blue wires from each light together.
- * Will NOT work w/ other sync products such as Ghost, LED3, & Intersector.





OVER-VOLTAGE PROTECTION

When an over-voltage condition is detected, the module will flash an over-voltage warning pattern of 50mS ON/950mS OFF to alert of the over-voltage condition and protect the electronics from damage due to heat/voltage.

THERMAL COMPENSATION PROTECTION

The LED module is designed to provide maximum power output while providing protection to the electronic components by reducing the output power at extreme temperatures.

SYNC 2

Syncronizing the flashing of multiple light modules is accomplished by connecting the Green and/or Blue wires of different light modules together. Up to 24 light modules can be connected for synchronized flashing. All light module flash patterns must be set to the same flash pattern # to ensure proper operation. Refer to the Sequence Type section in Set-Up Table to setup light modules to flash in alternate or simultaneous flash pattern. NOTE: Will NOT work with non-Sync 2 products such as Ghost, LED3, and Single Color Intersector.

PATTERNS	
NUMBER	NAME
1	SINGLE
2	DOUBLE
3	TRIPLE

FUNCTION TABLES

Changing the function table is only enabled when the LED module is in a flashing mode (disabled in cruise or steady ON functions). The functional operation of the LED module can be changed while applying the +V to the Red or Orange wire with the black wire connected to ground. When the light is flashing, momentarily connect the White or Yellow wire to ground for >4S and <5S (light will go steady high, steady low, off, steady high, steady low) then release. The function table will now advance to the next table (table 1 to table 2, table 2 to table 3, or table 3 to table 1). Repeat above process until required function table is active.

FUNCTION TABLE 1			
WIRE			LIGHT
RED (SGL) ORANGE (DUAL)	R/W (SGL) O/W (DUAL)	WHT (SGL) YELLOW (DUAL)	SINGLE
+12V			FLASH
	+12		CRUISE
+12V	+12V		FLASH
		+12V	NO OP
+12V		+12V	LOW PWR FLASH
	+12V	+12V	CRUISE
+12V	+12V	+12V	LOW PWR FLASH

FUNCTION TABLE 2			
WIRE			LIGHT
RED (SGL) ORANGE (DUAL)	R/W (SGL) O/W (DUAL)	WHT (SGL) YELLOW (DUAL)	SINGLE
+12V			FLASH
+12V		+12V	CRUISE
	+12V		STEADY CLR 1
	+12V	+12V	STEADY CLR 1
+12V	+12V	+12V	STEADY CLR 1
		+12V	NO OP

FUNCTION TABLE 3			
WIRE			LIGHT
RED (SGL) ORANGE (DUAL)	R/W (SGL) O/W (DUAL)	WHT (SGL) YELLOW (DUAL)	SINGLE
+12V			FLASH
	+12V		FLASH LOW PWR
+12V	+12V		FLASH LOW PWR
		+12V	NO OP
+12V		+12V	FLASH LOW PWR
	+12V	+12V	FLASH LOW PWR
+12V	+12V	+12V	FLASH LOW PWR



SIMULTANEOUS/ALTERNATE

This function can only be changed when the LED module is in a flashing mode (disabled in cruise or steady ON functions) and only has an effect when at least 2 LED modules have the green sync wire connected together. When the light is flashing, momentarily connect the white or yellow wire to ground for >3S and <4S (light will go steady high, steady low, off, steady high) then release. The light module will switch between Simultaneous and Alternate each time this sequence is done. To have light modules flash simultaneously, both light modules need to be set to the same sequence type (Set-Up Table). To have light modules flash alternately, the light modules need to be set to different sequence types (Set-Up Table).

ADVANCE PATTERN

Flash pattern can only be changed when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >250mS and <1S (light will go steady high) then release. The flash pattern will advance to the next pattern. If the light module was at the last pattern, the pattern will reset to the 1st pattern.

BACKUP PATTERN

This function is only valid when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >1S and < 2S (light will go steady high, steady low) then release. The flash pattern will backup to the previous pattern. If the light module was at the first pattern, the pattern will change to the last pattern on the list.

PATTERN RESET

This function is only valid when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >5S and <6S (light will go steady high, steady low, off, steady high, steady low, off) then release. The flash pattern will reset to the 1st pattern in the list.

FACTORY RESET

This function is only valid when the LED module is in a flashing mode (disabled in cruise or steady ON functions). When the light is flashing, momentarily connect the white or yellow wire to ground for >6S and <7S (light will go steady high, steady low, off, steady high, steady low, off, steady high) then release. The LED module will reset to: pattern=1, Function Table=1, Color Swap=OFF, Simultaneous.

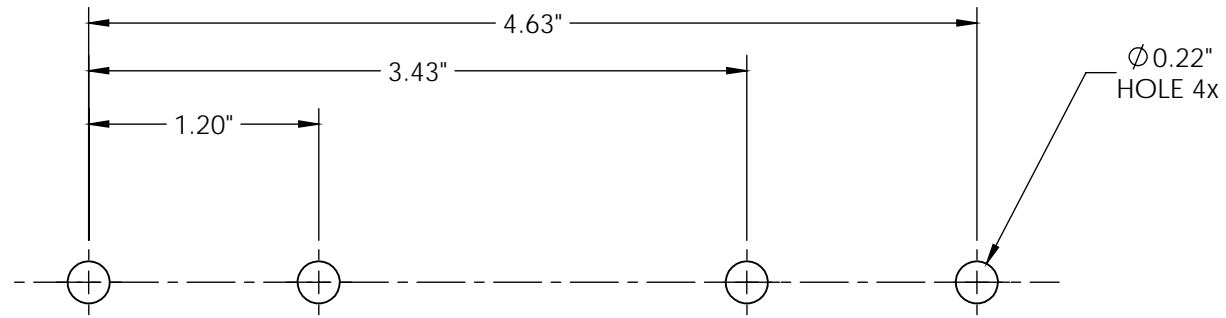
SETUP TABLE			
SECONDS		USER INTERFACE	
FROM	TO	VISUAL FEEDBACK	ACTION TAKEN
0	1	STEADY-HIGH (60%)	FORWARD ONE PATTERN
1	2	STEADY-LOW (30%)	BACKWARD ONE PATTERN
2	3	OFF	NONE
3	4	STEADY - HIGH (60%)	SEQUENCE TYPE: SIMULTANEOUS OR ALTERNATE
4	5	STEADY - LOW (30%)	SEE FUNCTION TABLE
5	6	OFF	RESET TO PATTERN 1
6	7	STEADY-HIGH (60%)	FACTORY RESET (PATTERN 1, COLOR SWAP: OFF, SIMULTANEOUS) SEPARATE COLOR CONTROL: OFF
If held longer than 7 seconds, the light will go back to flashing the current pattern and no action will be taken.			

BY NIGHT FEATURE:

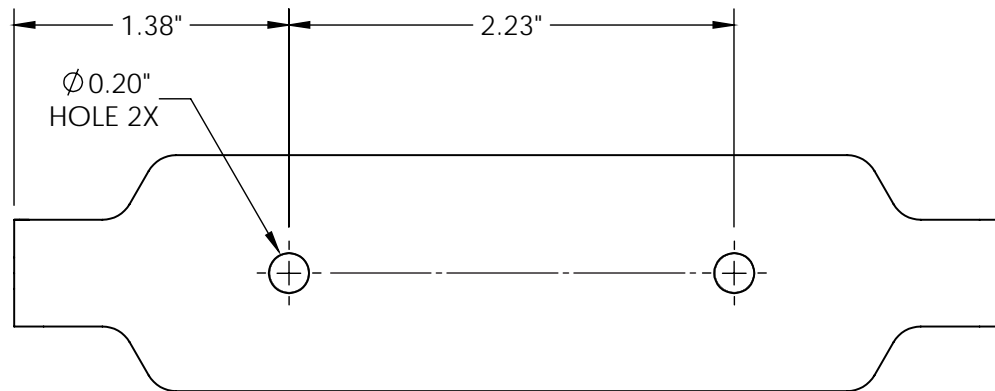
- Reduced intensity for night time use
- Configure Light Module for Function Table 3
- Apply power to white wire for single lights. Apply power to white and yellow wire for dual lights.

BY DAY FEATURE:

- Standard intensity for day time use
- Leave white wire floating for single lights. Leave yellow wire floating for dual lights.



DOUBLE MOUNT DECK/ GRILLE TEMPLATE



DECK/ GRILLE TEMPLATE