# by SoundOff Signal

#### INTERSECTOR LED LIGHT

#ENT3B3(xxx) - BLACK HOUSING
#ENT3C3(xxx) - CHROME HOUSING
#ENT3W3(xxx) - WHITE HOUSING
#PNT3DGBB DECK/ GRILLE BRACKET, BLACK

BEZEL

B

#### **△ WARNING**

#### Please see last page for Technical Specifications

- 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.

### SURFACE MOUNT INSTALLATION:

- Establish a position on the vehicle on a level surface. Orient the light output level on the horizon.
- Use the gasket provided as a template to mark locations of wire and mounting screws
- 3. Use a 5/8" diameter drill for the wire holes
- 4. Size pilot holes for mounting screws appropriately.
- 5. Fasten light using bezel and mounting screws. Do not torque mounting screws beyond 20 in lbs.

## DECK/ GRILLE BRACKET INSTALLATION:

(PURCHASED SEPARATELY)

- 1. Slide wire from Bezel through center access hole in the gasket and bracket.
- 2. Next, position the Housing over the Bezel and align the holes with the bracket.
- 3. Lastly, using the supplied 8-32 x 1" screws fasten the assembly lightly. Do not torque mounting screws beyond 20 in lbs.
- Establish a position on the vehicle on a level surface. Orient the light output level on the horizon.
- 5. Use the bracket provided as a template to mark locations of mounting screws.
- Size pilot holes for mounting screws appropriately.
- 7. Fasten light using bezel and mounting screws. Do not torque mounting screws beyond 20 in lbs.

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

#### **OPERATION:**

For details on operation see page with 'Flash Patterns' table on page 4.

#### **IMPORTANT:**

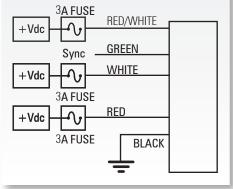
Supply power through a 3A fuse. For Flashing mode, refer to function tables 1,2 and 3 on page 3. For slave/Remote Node functionality such as when connected to Blueprint, permanently connect the Green wire to ground. Refer to Remote Node functionality table on page 5.

Insulate all connections.

| WIRE HOOK-UP TABLE |                                   |  |  |  |
|--------------------|-----------------------------------|--|--|--|
| WIRE COLOR:        | FUNCTION:                         |  |  |  |
| RED                | Table pg. 3                       |  |  |  |
| BLACK              | Ground                            |  |  |  |
| GREEN**            | Sync2 or Remote Node<br>Function* |  |  |  |
| WHITE to GROUND    | Wire Function<br>See Table pg. 2  |  |  |  |
| WHITE to POWER     | Table pg. 3                       |  |  |  |
| RED/WHITE          | Table pg. 3                       |  |  |  |

<sup>\*\*</sup> To sync multiple Intersector or nFORCE® lights connect the green wire from each light together. 
\*Will NOT work w/ other sync products such as Ghost®. LED3. & 4-wire Intersector.

#### **OPERATIONAL CONNECTIONS:**



#### NOTICE:

Installers and users must comply with all applicable federal, state and local laws regarding use and installation of warning devices.

Improper use or installation may void warranty coverage. To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product, visit our website at www.soundoffsignal.com/sales-support. If you have questions regarding this product, contact Technical Services, Monday - Friday, 8 a.m. to 5 p.m. at 1.800338.7337 (press #4 to skip the automated message). Questions or comments that do not require immediate attention may be emailed to techservices@soundoffsignal.com.





#### **ADVANCE PATTERN**

Flash pattern can only be changed when the LED module is in a flashing mode (disabled in cruise or steady 0N functions). When the light is flashing, momentarily touch the white 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 touch the white 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.

#### **COLOR SWAP**

This function is only valid for dual 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 touch the white 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 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 touch the white 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).

#### **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 touch the white wire to ground for >5s and <6s (light will go steady high, steady low, off, steady low, off, 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 touch the white wire to ground for >6S and <7S (light will go steady high, steady low, off, steady high steady low, off, steady low, off, steady high steady low, off, steady low, off, steady high steady low, off, steady high steady low, off, steady

| SETUP TABLE |     |                     |  |  |  |  |
|-------------|-----|---------------------|--|--|--|--|
| SECO        | NDS | 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:<br>SIMULTANEOUS OR ALTERNATE  |  |  |  |
| 4           | 5   | STEADY - LOW (30%)  | SET FUNCTION TABLE   |  |  |  |
| 5           | 6   | OFF                 | RESET TO PATTERN 1   |  |  |  |
| 6           | 7   | STEADY-HIGH (60%)   | FACTORY RESET (PATTERN 1, COLOR SWAP:<br>OFF, SIMULTANEOUS)<br>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.

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#### **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 wire with the black wire connected to ground. When the light is flashing, momentarily connect the White wire to ground for >4S and <5S (light will go steady high, steady low, off, 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              | R/W    | WHT    | SINGLE        | DUAL         | TRI          |  |  |
| +9-32V           |        |        | FLASH         | FLASH DUAL   | FLASH TRI    |  |  |
|                  | +9-32V |        | CRUISE        | STEADY CLR 2 | STEADY CLR 3 |  |  |
| +9-32V           | +9-32V |        | FLASH         | STEADY CLR 2 | STEADY CLR 3 |  |  |
|                  |        | +9-32V | NO OP         | NO OP        | NO OP        |  |  |
| +9-32V           |        | +9-32V | LOW PWR FLASH | FLASH CLR 1  | FLASH CLR 1  |  |  |
|                  | +9-32V | +9-32V | CRUISE        | FLASH CLR 2  | FLASH CLR 2  |  |  |
| +9-32V           | +9-32V | +9-32V | LOW PWR FLASH | FLASH DUAL   | FLASH CLR 3  |  |  |

| FUNCTION TABLE 2 |        |        |                 |              |              |  |
|------------------|--------|--------|-----------------|--------------|--------------|--|
|                  | WIRE   |        |                 | LIGHT        |              |  |
| RED              | R/W    | WHT    | SINGLE DUAL TRI |              |              |  |
| +9-32V           |        |        | FLASH           | FLASH CLR 1  | FLASH DUAL   |  |
| +9-32V           |        | +9-32V | CRUISE          | FLASH DUAL   | FLASH TRI    |  |
|                  | +9-32V |        | STEADY CLR 1    | STEADY CLR 2 | STEADY CLR 3 |  |
|                  | +9-32V | +9-32V | STEADY CLR 1    | STEADY CLR 2 | STEADY CLR 3 |  |
| +9-32V           | +9-32V | +9-32V | STEADY CLR 1    | STEADY CLR 2 | STEADY CLR 3 |  |
|                  |        | +9-32V | NO OP           | NO OP        | NO OP        |  |
| +9-32V           | +9-32V |        | STEADY CLR 1    | STEADY CLR 2 | STEADY CLR 3 |  |

| FUNCTION TABLE 3 |        |        |               |                       |                   |  |
|------------------|--------|--------|---------------|-----------------------|-------------------|--|
| WIRE             |        |        |               | LIGHT                 |                   |  |
| RED              | R/W    | WHT    | SINGLE        | DUAL                  | TRI               |  |
| +9-32V           |        |        | FLASH         | FLASH DUAL            | FLASH TRI         |  |
|                  | +9-32V |        | FLASH LOW PWR | FLASH DUAL LOW<br>PWR | FLASH TRI LOW PWR |  |
| +9-32V           | +9-32V |        | FLASH LOW PWR | FLASH DUAL LOW<br>PWR | FLASH TRI LOW PWR |  |
|                  |        | +9-32V | NO OP         | NO OP                 | NO OP             |  |
| +9-32V           |        | +9-32V | FLASH LOW PWR | FLASH DUAL LOW<br>PWR | FLASH TRI LOW PWR |  |
|                  | +9-32V | +9-32V | FLASH LOW PWR | FLASH DUAL LOW<br>PWR | FLASH TRI LOW PWR |  |
| +9-32V           | +9-32V | +9-32V | FLASH LOW PWR | FLASH DUAL LOW<br>PWR | FLASH TRI LOW PWR |  |



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#### SYNC 2

Syncronizing the flashing of multiple light modules is accomplished by connecting the Green wires of different light modules together. Up to 24 light modules can be connected for syncronized 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 Sync products such as Ghost, LED3, 4-wire Intersector.

| ELACIT DATTEDNIC |                              |                  |   |  |  |  |
|------------------|------------------------------|------------------|---|--|--|--|
| FLASH PATTERNS   |                              |                  |   |  |  |  |
| PATTERN<br>#     | SINGLE<br>COLOR              | SAE<br>COMPLIANT |   |  |  |  |
| 1                |                              | QUINT            | х |  |  |  |
| 2                |                              | WARP             | х |  |  |  |
| 3                |                              | INTER-CYCLE      | х |  |  |  |
| 4                |                              | DOUBLE           |   |  |  |  |
| 5                |                              | QUAD             | х |  |  |  |
| 6                |                              | POWER PULSE      | х |  |  |  |
| 7                |                              | ROAD RUNNER      | х |  |  |  |
| 8                |                              | х                |   |  |  |  |
| 9                | STEA<br>(SEQUE<br>SEQUE)     | х                |   |  |  |  |
| 10               | STEADY-B<br>(SEQUE<br>SEQUEN | х                |   |  |  |  |
| 11               |                              | х                |   |  |  |  |
| 12               |                              | х                |   |  |  |  |
| 13               |                              | х                |   |  |  |  |
| 14               |                              | RANDOM 2         |   |  |  |  |





#### REMOTE MODE: FOR USE WITH bluePRINT SYSTEM ONLY

Connecting the Green wire to ground before applying power to the 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.

| INTERSECTOR LED LIGHT REMOTE NODE FUNCTIONALITY |                       |                   |                  |  |  |                   |                   |  |
|---|-----------------------|-------------------|------------------|--|--|-------------------|-------------------|--|
|   |                       | Single Color      |                  | Dual   | Dual Color   |                   | Tri Color         |  |
| Red Wire  | Red Wire Red/Wht Wire | Color<br>Swap=OFF | Color<br>Swap=ON | Color<br>Swap=OFF  | Color<br>Swap=ON   | Color<br>Swap=OFF | Color<br>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<br>Color 1 during OFF<br>cycle of Flash | Flash Color 1/Cruise<br>Color 2 during OFF<br>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<br>CYCLE (@ 100Hz) |              |  |  |
|-------------------------------------|--------------|--|--|
| Input                               | Light Output |  |  |
| 40%                                 | OFF          |  |  |
| 50%                                 | 5%           |  |  |
| 60%                                 | 10%          |  |  |

| LOW POWER FLASH D.C.<br>(@ 100Hz) |              |  |  |
|-----------------------------------|--------------|--|--|
| Input                             | Light Output |  |  |
| 70%                               | 30%          |  |  |
| 80%                               | 40%          |  |  |
| 90%                               | 50%          |  |  |





#### **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.

| TECHNICAL SPECIFICATIONS  |  |  |  |
|---|--|--|--|
| INTERSECTOR   |  |  |  |
| Single Mount<br>Dimensions:   | 2.9" (74 mm) W x 1.9" (48 mm) H x 2.9" (74 mm) D |  |  |
| Input Voltage:  | 9 - 32 Vdc                                       |  |  |
| AFTER POWER IS ON, touching the WHITE wire to the ground will allow you to change variouse settings on the module. (refer to pages 3 & 4) |  |  |  |

|                                |  | 9-32          | 9-32Vdc     |         |  |
|--------------------------------|--|---------------|-------------|---------|--|
|                                | SINGLE / DUAL COLOR CURRENT CONSUMPTION (Amps) |               |             |         |  |
|                                | 12.8Vdc 25.6Vdc                                |               |             |         |  |
|                                | Peak   | Average       | Peak        | Average |  |
| Red                            | 1.00   | 0.60          | 0.50        | 0.30    |  |
| Amber, Blue,<br>Green or White | 1.30   | 1.30 0.80     |             | 0.40    |  |
|                                | TRI COLOF                                      | R CURRENT CON | SUMPTION (A | Amps)   |  |
|                                | 12.8   | Vdc           | 25.6        | Vdc     |  |
|                                | Peak Average Peak Average                      |               |             |         |  |
| Red                            | 0.77   | 0.46          | 0.36        | 0.22    |  |
| Amber, Blue,<br>Green or White | 1.00   | 0.60          | 0.50        | 0.30    |  |



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Improper use or installation may void warranty coverage. To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product, visit our website at www.soundoffsignal.com/sales-support. If you have questions regarding this product, contact Technical Services, Monday - Friday, 8 a.m. to 5 p.m. at 1.800338.7337 (press #4 to skip the automated message). Questions or comments that do not require immediate attention may be emailed to techservices@soundoffsignal.com.