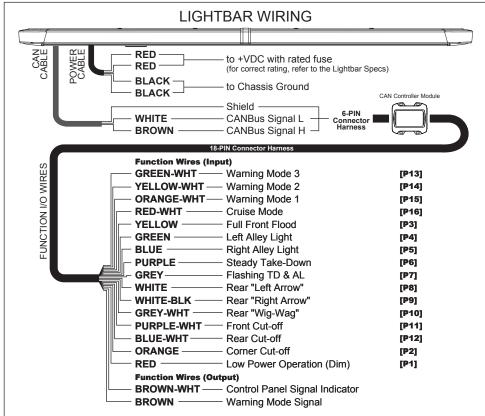
# WIRING & FUNCTIONS (CL Single / Dual / Tri Colour - SAE)

Proper installation of the product requires the installer to have a good understanding of automotive electronics, systems and procedures. Different applications may require different functions. For optimum efficiency, it is highly recommended to determine, configure and test the required functions prior to installation.



NOTE: All function wires (Input) are activated by applying +VDC continuously.

**[Px]** = Order of Precedence. When more than one wire are activated at the same time, the wire with the higher precedence will override / affect the performance of the lower precedence wire. P1 being the highest order.

\*Actual approval is based on the configuration of the model ordered.

# A WARNING

- DO NOT USE THE POWER WIRE(S) AS THE LIGHTBAR ACTIVATION SWITCH. USE ONLY THE FUNCTION WIRE(S) TO SWITCH AND ACTIVATE.
- ENSURE THE POWER WIRE(S) ARE PROPERLY CONNECTED BEFORE ACTIVATING ANY FUNCTION WIRE(S).
- FAULTY CONNECTIONS MAY CAUSE THE LIGHTBAR TO MALFUNCTION AND / OR RESET TO ITS DEFAULT SETTINGS.
- DO NOT USE A HIGH PRESSURE POWER WASHER TO CLEAN YOUR LIGHTBAR; THIS MAY DAMAGE YOUR LIGHTBAR AND VOID ITS WARRANTY.

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# == POWER CABLE ==

- 1. Route power cables to the vehicle firewall towards the battery, preferably using a factory pass-through. If drilling a hole is required, please ensure there are no factory components in the area to be drilled.
- 2. Splice 2 **RED** wires to form a single wire then install a fuse (user-supplied) to the end of the **RED** wire, before connecting it to the battery. (for correct fuse rating, refer to the Lightbar Specs.)
- 3. Splice 2 **BLACK** wires to form a single wire then connect the **BLACK** wire to the vehicle chassis-ground next to the battery.

**NOTE:** Ensure that all wires of the power cable are firmly connected to the power source.

# == CAN CABLE ==

- 1. Route CAN Cable towards the CAN Controller Module.
- 2. Connect 2 CANBus signal and Shield wires to respective counterparts on the 6-pin connector harness of the CAN Controller Module. (Refer to CAN Controller Module Installation and Operation Manual)

# == FUNCTION WIRES (Input) ==

Connect each individual function wire according to its function.

# WARNING MODE 1

Activate *Warning Mode 1* by applying **+VDC** to **ORANGE-WHT** wire. All warning lightheads will display Single Flash [SAE] simultaneously.

Note: If the lightbar is equipped with Dual or Tri Colour warning lighthead, all rear lightheads will flash in Colour 1, while front lightheads flash in Colour 1 alternating Colour 2 side-by-side.

# WARNING MODE 2

Activate *Warning Mode 2* by applying **+VDC** to **YELLOW-WHT** wire. All warning lightheads will display Single Flash [SAE], left half alternating right half.

#### WARNING MODE 3

Activate *Warning Mode 3* by applying **+VDC** to **GREEN-WHT** wire. All warning lightheads will display Single H/L, left half alternating right half.

# **CRUISE MODE**

Activate *Cruise Mode* by applying **+VDC** to **RED-WHT** wire. All warning lightheads will be activated in low power steady-burn.

# FULL FRONT FLOOD

Activate *Full Front Flood* by applying **+VDC** to the **YELLOW** wire. All Front, Take-Down and Alley Lights will display in High Power steady-burn.

Note: If the lightbar is equipped with Dual or Tri Colour warning lighthead, Colour 2 or Colour 3 will be displayed respectively.

# **TAKE-DOWN LIGHTS**

Activate steady-burn *Take-Down Light* by applying **+VDC** to **PURPLE** wire. When *Take-Down Light* is activate with *Flashing Take-Down & Alley Light*, Take-Down Light(s) will steady-burn while Alley Light(s) flash continuously.

# **ALLEY LIGHTS**

Activate steady-burn Alley Light by applying +VDC to

- **GREEN** wire for Left Alley Light.
- **BLUE** wire for *Right Alley Light*.

When *Alley Light* is activate with *Flashing Take-Down & Alley Light*, Alley Light(s) will steady-burn while Take-Down Light(s) flash continuously.

# FLASHING TAKE DOWN & ALLEY LIGHT

Activate Flashing Take-Down & Alley Light (Left alternating Right) by applying +VDC to GREY wire.

# **TRAFFIC ARROW**

Activate rear Traffic Arrow function by applying +VDC to:

- WHITE wire for *Left Arrow*.
- WHITE-BLK wire for *Right Arrow*.
- Above 2 wires together for *Centre-Out Arrow*.
- Note: If the lightbar is equipped with Dual or Tri Colour warning lighthead, Colour 2 or Colour 3 will be displayed respectively.

# REAR WIG-WAG

Activate *Rear Wig-Wag* by applying **+VDC** to **GREY-WHT** wire. Rear lightheads will display Single Flash [2Hz], alternating side-by-side.

Note: If the lightbar is equipped with Dual or Tri Colour warning lighthead, Colour 2 or Colour 3 will be displayed respectively.

#### WARNING CUT-OFF

Deactivate warning lightheads in each respective area by applying

- +VDC to PURPLE-WHT wire for Front Cut-off.
- +VDC to BLUE-WHT wire for Rear Cut-off.
- +VDC to ORANGE wire for Corner Cut-off.

Note: Warning Cut-off does not affect Take-Down Light, Alley Light and Traffic Arrow function.

#### LOW POWER OPERATION / DIM FUNCTION

Activate Low Power Operation by continuously applying +VDC to RED wire.

# == FUNCTION WIRES (Output) ==

Connect each individual function wires according to its function.

#### CONTROL PANEL SIGNAL INDICATOR (REAR LIGHTHEAD)

Connect **BROWN-WHT** wire to the display signal input of a compatible Control Panel to display current rear lighthead activity.

#### WARNING MODE SIGNAL

Connect **BROWN** wire to an apparatus that is needed to be turned ON with Warning Modes (e.g. Unlocking Siren Interlock); a 250mA signal is output whenever **GREEN-WHT**, **YELLOW-WHT** and/or **ORANGE-WHT** wire is activated.

# == AUTO-DIMMING LIGHT SENSOR ==

If the lightbar is equipped with an Auto-Dimming Light Sensor, *Low Power Operation* will automatically activate when the ambient brightness is below the set-value (e.g. night time) and deactivate once prior condition is removed. The Auto-Dimming Light Sensor takes precedence over all other function wires.

# == PC PROGRAMMING ==

All function wires may be customized and re-programmed to user's preference for

- Light Sensor dimming values,
- Lighthead flash delay / flash groups / phases / flash patterns / colours,
- Low power %,
- Traffic arrow patterns,
- Output signal,
- Wire precedence (priority),
- and etc.

LSBD Lightbar Configuration Tool is a piece of software that can be used to program your Silverblade lightbar quickly and intuitively. Download software from the support utility site via this link:

Note: For more instructions, refer to [Software Manual] from the support utility site.