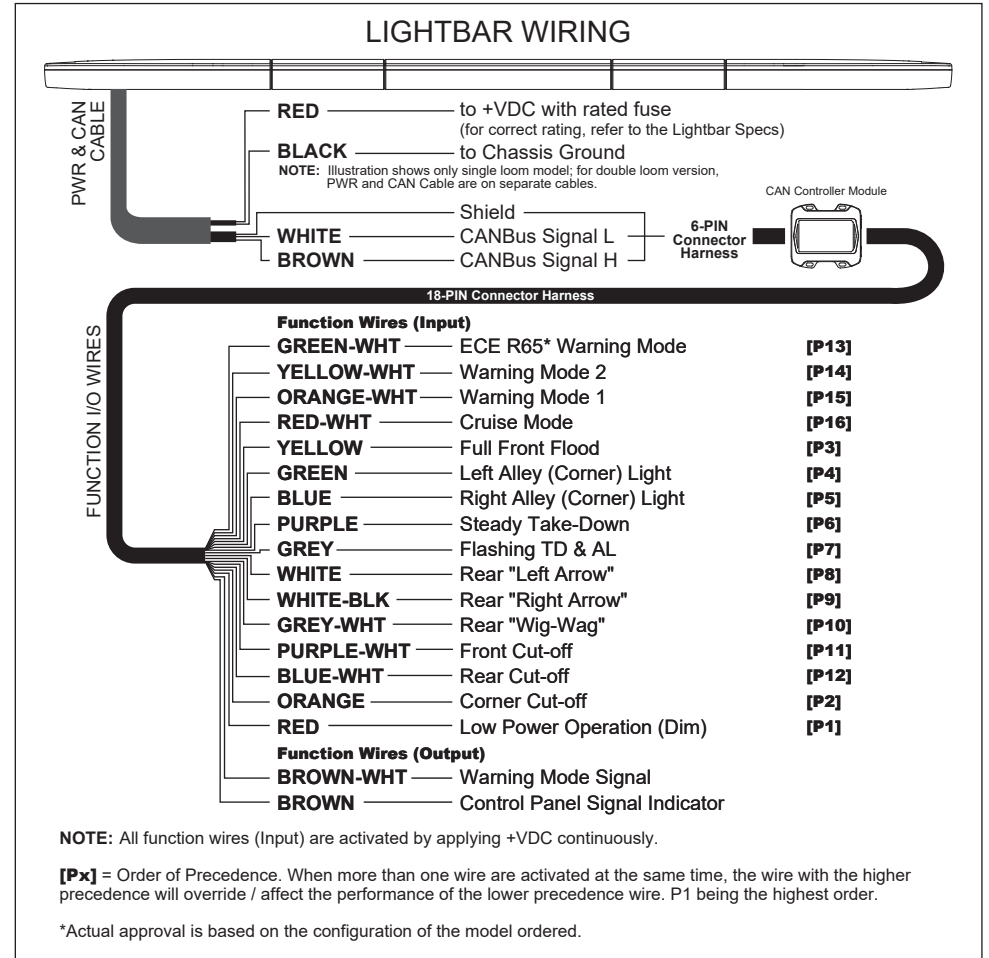


## WIRING & FUNCTIONS (CE - Single / Dual Colour - ECE R65/R10)

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.



### ⚠ 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.

## == POWER & CAN CABLE ==

1. Route power wires 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. Install a fuse (user-supplied) to the end of the **RED** wire and connect it to the battery. (for correct fuse rating, refer to the Lightbar Specs.)
3. 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.
4. Route CAN wires towards the CAN Controller Module.
5. 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.

### ECE R65 WARNING MODE

Activate *ECE R65 Warning Mode* by applying the **GREEN-WHT** wire to **+VDC**. All corner lighthoods will display Double Flash [2Hz] simultaneously.

### WARNING MODE 1

Activate Warning Mode 1 by applying the **ORANGE-WHT** wire to **+VDC**. All warning lighthoods will display Pulsing Flash Pattern simultaneously.

### WARNING MODE 2

Activate Warning Mode 2 by applying the **YELLOW-WHT** wire to **+VDC**. All warning lighthoods will display Double Flash [2Hz] simultaneously.

### CRUISE MODE

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

### FULL FRONT FLOOD

Activate *Full Front Flood* by applying **+VDC** to the **YELLOW** wire. All Front Middle & Front Corner Lighthoods will display in High Power steady-burn.

**NOTE:** If the lightbar is equipped with Dual Color warning lighthouse, Color 2 will be displayed.

### TAKE-DOWN LIGHTS

Activate *Take-Down Light* in High Power steady-burn by applying the **PURPLE** wire to **+VDC**. By default, Take-Down Lights are set at the second lighthoods from the center of the lightbar.

**NOTE:** If the lightbar is equipped with Dual Color lighthoods as Take-Down light, Color 2 will be displayed.

### ALLEY (CORNER) LIGHT

Activate Alley and Corner warning lighthoods in High Power steady-burn by applying

- **GREEN** wire to **+VDC** for Left Alley & Corner Light.
- **BLUE** wire to **+VDC** for Right Alley & Corner Light.

**NOTE:** If the lightbar is equipped with Dual Color lighthoods, Color 2 will be displayed.

### FLASHING TAKE-DOWN & ALLEY LIGHT

Activate *Flashing Take-Down & Alley Light* in Left alternating Right by applying the **GREY** wire to **+VDC**. By default, Take-Down Lights are set at the second lighthoods from the center of the lightbar.

**NOTE:** If the lightbar is equipped with Dual Color lighthoods, Color 2 will be displayed.

### TRAFFIC ARROW

Activate rear Traffic Arrow function by applying

- **WHITE** wire to **+VDC** for Left Arrow
- **WHITE-BLK** wire to **+VDC** for Right Arrow
- Above 2 wires together to **+VDC** for Centre-out Arrow

**NOTE:** If the lightbar is equipped with Dual Color warning lighthouse, Color 2 will be displayed.

### REAR WIG-WAG

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

**NOTE:** If the lightbar is equipped with Dual Color warning lighthouse, Color 2 will be displayed.

### WARNING CUT-OFF

Deactivate warning lighthoods in each respective area by applying

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

### WARNING MODE SIGNAL

Connect **BROWN-WHT** 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.

### CONTROL PANEL SIGNAL INDICATOR (REAR LIGHTHEAD)

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

## == 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,
- Lighthouse flash delay / flash groups / phases / flash patterns / colours,
- Low power %,
- Traffic arrow patterns,
- Output signal,
- Wire precedence (priority),
- and etc.

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

<https://service.juluen.com.tw/Utility>

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