

Essential Phazer Advanced Programming

Because each Economy Phazer lightbar is custom designed at the factory, understanding some key points about the design of this lightbar is imperative if you are trying to reprogram any of the advanced options that are available.

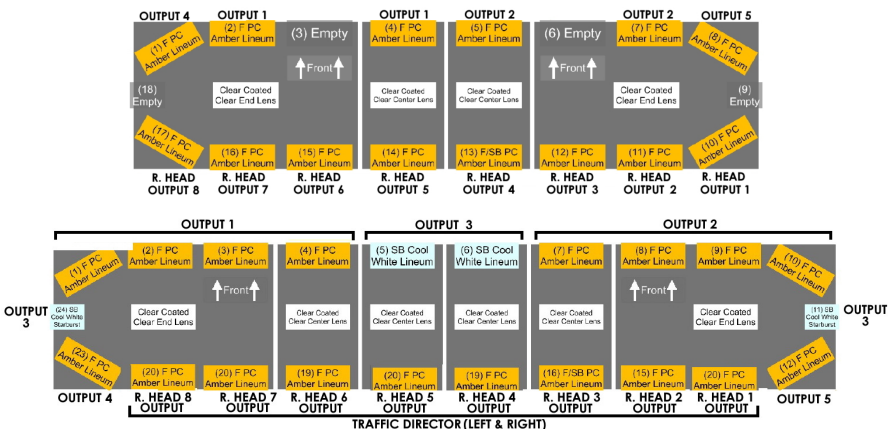
- ▶ This lightbar has 5 main functions:
 - Two flashing functions (**ORANGE w/RED** and **YELLOW** wires)
 - Steady burn function (**WHITE w/BROWN** Wire)
 - Right Traffic Directing (**ORANGE w/GREEN** wire)
 - Left Traffic Directing (**GREEN w/YELLOW** wire)
- ▶ This lightbar has 13 different outputs that are pre-wired to specific head(s) when the lightbar is built. The paperwork enclosed with each lightbar will define which Outputs are tied to each head. This is not a customizable option available through programming.
- ▶ All heads attached to the same Output flash on and off together. This cannot be re-programmed.
- ▶ Each Enable Wire can be re-programmed to activate different Outputs.

This chart summarizes the available options for reprogramming each wire.

Input Wire Color Function	ORANGE w/RED	YELLOW	WHITE w/BROWN			ORANGE w/GREEN	GREEN w/YELLOW
Function	Enable 1	Enable 2	AUX			Right	Left
Function	Flashing Phase A or B	Flashing Phase A or B	Take Down	Cruise	Dim	Traffic Director	
Outputs 1,2,3,4,5	YES	YES	YES	YES	YES	NO	NO
Outputs 6,7,8,9,10,11,12,13	YES	YES	YES	YES	YES	YES	YES

Below are the standard layouts for each size lightbar. If customized, yours may differ.

- | | | |
|--|---|--|
| | 51" | |
| Orange w/Red: (Enable 1) | Outputs 1 & 4 (Phase A) & 2 & 5 (Phase B) | Outputs 1 (Phase A) & 2 (Phase B) |
| Yellow: (Enable 2) | R.Head Outputs 5-8 (Phase A)
R. Head Outputs 1-4 (Phase B) | Outputs 4 & R.Heads 5-8 (Phase A)
Output 5 & R. Heads 1-4 (Phase B) |
| White w/Brown: (Function 3 / AUX) | Outputs 4, 5, R. Heads 1 & 8 (Cruise Mode) | Output 3 (Takedown/Alley) |
| Orange w/Green: (TD Right) | Outputs R. Head 2-7 | Outputs R. Head 1-8 |
| Green w/Yellow: (TD Left) | Outputs R. Head 2-7 | Outputs R. Head 1-8 |



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Output Activation Programming

Each Enable wire activates one or more Outputs. The Outputs that are programmed to activate for each Enable wire (as well as which Heads are tied to each Output) are defined on the paperwork that is enclosed with each bar when shipped. *Please note that each Output is tied to a specific head when the lightbar is built and cannot be changed.*

The Output Activation option that is selected from the chart below is independent for each Enable, so each Enable wire will be programmed separately.

To change the active Outputs for Enable Wires 1, 2, or 3 (*Enable 1=Orange w/Red, Enable 2=Yellow, Enable 3/AUX/DIM/Cruise/Steady=White w/Brown*) proceed as follows:

1. Connect **BLACK** to **GROUND** and **RED** to **POWER**.
2. Connect the Enable Wire that you want to program to **POWER**. The Outputs (i.e. Heads) currently tied to that Enable wire will activate.
3. Hold the **GREEN w/RED** wire to **POWER** until the light flashes 4 times (approximately 12 seconds). This places the light into Output Activation Programming Mode.
4. Touch and release the **GREEN w/RED** wire to **GROUND** to scroll through the options below.

NOTE: For the Dim function, the activated heads will light up for 1 second after you release the **GREEN w/RED** wire.

NOTE: You can reset each wire to its default factory setting for this option by holding the **GREEN w/RED** wire to **GROUND** until the light flashes once (~3 seconds)

5. Once you have the desired heads activated, disconnect the Enable wire.
6. Repeat for each Enable wire that you want to change.

	Output 3	Output 4	Output 5	Output 2	Output 1	R_Head 8	R_Head 7	R_Head 6	R_Head 5	R_Head 4	R_Head 3	R_Head 2	R_Head 1
1	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
2				ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
3					ON	ON	ON	ON	ON	ON	ON	ON	ON
4	ON	ON			ON	ON	ON	ON	ON	ON	ON	ON	ON
5	ON	ON	ON	ON									
6				ON	ON								
7	ON	ON											
8	ON	ON						ON	ON	ON	ON		
9	ON	ON							ON	ON			
10	ON	ON			ON								ON
11	ON	ON			ON	ON						ON	ON
12	ON	ON			ON	ON	ON				ON	ON	ON
13	ON	ON			ON					ON			
14	ON	ON			ON	ON		ON	ON		ON	ON	
15	ON	ON				ON						ON	
16	ON												
17	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
18	ON			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
19	ON	ON	ON		ON	ON	ON	ON	ON	ON	ON	ON	ON
20	ON	ON	ON	ON	ON								
21	ON				ON	ON							
22	ON	ON	ON										
23	ON	ON	ON					ON	ON	ON	ON		
24	ON	ON	ON						ON	ON			
25	ON	ON	ON			ON							ON
26	ON	ON	ON			ON	ON					ON	ON
27	ON	ON	ON			ON	ON	ON			ON	ON	ON
28	ON	ON	ON			ON					ON		
29	ON	ON	ON			ON	ON		ON	ON		ON	ON
30	ON	ON	ON				ON					ON	

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Phase Programming

“Phase” refers to whether lights that are activated together flash simultaneously (On and Off at the same time) or if they alternate (one On while the other is Off). All flashing lights programmed for the same Phase will simultaneously flash. All flashing lights programmed for opposite Phases will flash alternately.

Please note that each Output is tied to a specific head and cannot be changed via programming. The Output layout for each bar is shown on the paperwork enclosed with each bar when shipped.

The Phase Programming Mode that is selected from the chart below will affect both Enable 1 and Enable 2, so it is recommended that you activate both when programming.

To change the Phase Mode, proceed as follows:

1. Connect **BLACK** to **GROUND** and **RED** to **POWER**.
2. Connect both Enable wires (**ORANGE w/RED** and **YELLOW**) to **POWER**. The flashing lights for both Enable wires will activate.
3. Hold the **GREEN w/RED** wire to **POWER** until the light flashes once, then twice, then 3 times, then 4 times, then 5 times (approximately 15 seconds).
4. Touch and release the **GREEN w/RED** wire to **GROUND** to scroll through the various Phase Mode options below.

NOTE: You can directly Shortcut to Phase option 1 at any time by holding the **GREEN w/RED** wire to **GROUND** until the light flashes once (3 seconds)

5. Once you have the desired mode, disconnect the Enable wires.
6. Activate each Enable wire separately to verify that the Phase Mode you have selected is acceptable.

	Output 3	Output 4	Output 5	Output 2	Output 1	R. Head 8	R. Head 7	R. Head 6	R. Head 5	R. Head 4	R. Head 3	R. Head 2	R. Head 1
1	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2
2	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
3	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
4	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1
5	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2
6	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2
7	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2
8	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
9	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1
10	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2
11	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2
12	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2

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AUX Mode Programming

The **WHITE w/BROWN** wire (Enable 3/AUX) can be programmed for three different functions:

- Takedown - A bright steady burn mode for Takedown, Pursuit, Ally, or Work lights.
- Cruise - A dim steady burn mode typically used for low priority situations such as general patrolling.
- Dim - Used to dim all warning lights at night.

To change the AUX Mode, proceed as follows:

1. Connect **BLACK** to **GROUND** and **RED** to **POWER**.
2. Connect the Enable 3/AUX wire (**WHITE w/BROWN**) to **POWER**. The lights programmed for this wire will activate.
3. Hold the **GREEN w/RED** wire to **POWER** until the light flashes the number of times that corresponds to the mode you want:
 - Takedown - 1 Flash (3 seconds)
 - Cruise Mode Low - 1 then 2 Flashes (6 seconds)
 - Dim Function - 1, then 2, then 3 Flashes (9 seconds)
 - Cruise Mode High - 1, then 2, then 3, then 4, then 5 Flashes (15 seconds)
4. Once you have the desired mode, disconnect the wires.

Review page 2 if you need to reprogram which outputs are activated with each function.

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Default Setup Programming

There are two default setups used for most bars. Setup 1 for the standard 65" bars and Setup 2 for the standard 51" bars. The programming for each is outlined in the chart below. To revert a bar to either of these setups, proceed as follows:

1. Connect **BLACK** to **GROUND** and **RED** to **POWER**.
2. **For Default Setup 1** - Hold the **GREEN w/RED** wire to **POWER** until the light flashes once (approximately 3 seconds).

For Default Setup 2 - Hold the **GREEN w/RED** wire to **POWER** until the light flashes twice (approximately 6 seconds).

3. Once you have the desired mode, disconnect the wires.

DEFAULT SETUP 1

Selected Option	Output 3	Output 4	Output 5	Output 2	Output 1	R. Head 8	R. Head 7	R. Head 6	R. Head 5	R. Head 4	R. Head 3	R. Head 2	R. Head 1
Enable 1	6			ON	ON								
Enable 2	4	ON	ON			ON	ON	ON	ON	ON	ON	ON	ON
Enable 3 /AUX = Front Worklight/Alley Function													
Enable 3 /AUX	16	ON											
Phase	1	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2
Traffic Director	1					ON	ON	ON	ON	ON	ON	ON	ON
TD Warn Pattern	1												
TD Directing Pattern	7												

DEFAULT SETUP 2

Selected Option	Output 3	Output 4	Output 5	Output 2	Output 1	R. Head 8	R. Head 7	R. Head 6	R. Head 5	R. Head 4	R. Head 3	R. Head 2	R. Head 1
Enable 1	5	ON	ON	ON	ON								
Enable 2	3					ON	ON	ON	ON	ON	ON	ON	ON
Enable 3 /AUX = Cruise													
Enable 3	9	ON	ON		ON								ON
Phase	1	Phase 1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2
Traffic Director	2					ON	ON	ON	ON	ON	ON	ON	ON
TD Warn Pattern	1												
TD Directing Pattern	7												

Default Traffic Director Mode Programming

There are two TD setups used for most bars, 8-Head or 6-Head. To change the setup from 6 to 8 or vice-versa, proceed as follows:

1. Connect **BLACK** to **GROUND** and **RED** to **Power**.
2. Connect the **TD Right** or **TD Left** Enable Wire to **POWER**. The Outputs (i.e. Heads) currently tied to that Enable wire will activate.
3. Hold the **GREEN w/RED** wire to **POWER** until the light flashes 4 times (approximately 12 seconds). This places the light into Output Activation Programming Mode.
4. Touch and release the **GREEN w/RED** wire to **GROUND** to toggle between the two modes (shown below).
5. Once you have the desired heads activated, disconnect the wires.

TRAFFIC DIRECTOR OPTIONS

	Output 3	Output 4	Output 5	Output 2	Output 1	R. Head 8	R. Head 7	R. Head 6	R. Head 5	R. Head 4	R. Head 3	R. Head 2	R. Head 1
1						ON	ON	ON	ON	ON	ON	ON	ON
2													ON