

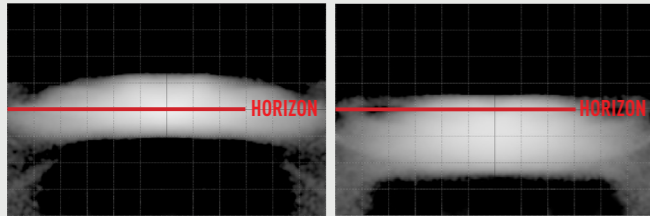
## BEAM PATTERNS

MOTIFS DE FAISCEAU | STRAHLBILDER | STRÅLEMØNSTRER | STRÅLKONFIGURATIONER | VALOMALLIT

## CARBON DRIVE

HIGH BEAM / BOOST

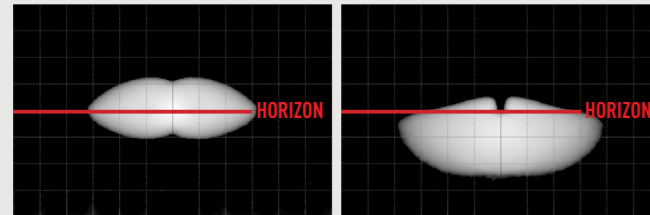
DIP / LOW BEAM



## CARBON SPOT

HIGH BEAM / BOOST

DIP / LOW BEAM



## ACCESSORIES

LES ACCESSOIRES DISPONIBLES | VERFÜGBARES ZUBEHÖR | TILLEGGSUTSTYR | TILLBEHÖR | TARVIKKEET



RALLY PODS



UNIVERSAL RALLY KITS



ACCESSORIES AND MOUNTS



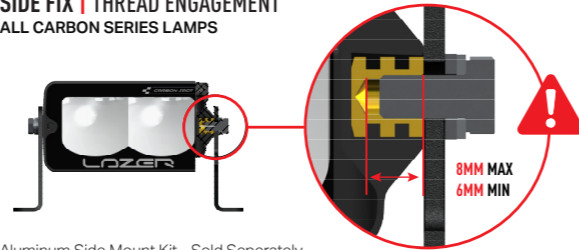
WIRING KITS

## MOUNTING INSTRUCTIONS

INSTRUCTIONS DE MONTAGE | MONTAGEANLEITUNG | MONTERINGSANVISNINGER | MONTERINGSANVISNINGAR | ASENNUSOHJEET

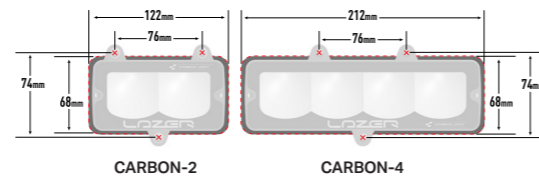
### SIDE FIX | THREAD ENGAGEMENT

ALL CARBON SERIES LAMPS



Aluminum Side Mount Kit - Sold Separately  
(Part no. 1117K)

### FRONT FIX | CUT-OUT GEOMETRY



### FINE ADJUSTMENT SCREW

CARBON-6  
RALLY POD

1 Turn = 0.83° of up  
(anti-clockwise) or  
down (clockwise)  
adjustment.



CARBON-2 & CARBON-4  
FRONT FIX

Spring Free Length: 31.75mm  
Pre-Loaded Length: 25.25mm  
Spring Compressed Length: 12.5mm

1 Turn = 0.25° of adjustment.

**LAZER**  
HIGH PERFORMANCE LIGHTING

[WWW.LAZERLAMPS.COM](http://WWW.LAZERLAMPS.COM)

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**LAZER**  
HIGH PERFORMANCE LIGHTING

**CARBON  
SERIES**

**INSTRUCTIONS**

INSTRUCTIONS | ANLEITUNG | INSTRUKSJONER  
| INSTRUKTIONER | KÄYTTÖOHJE

## ELECTRICAL CONNECTION

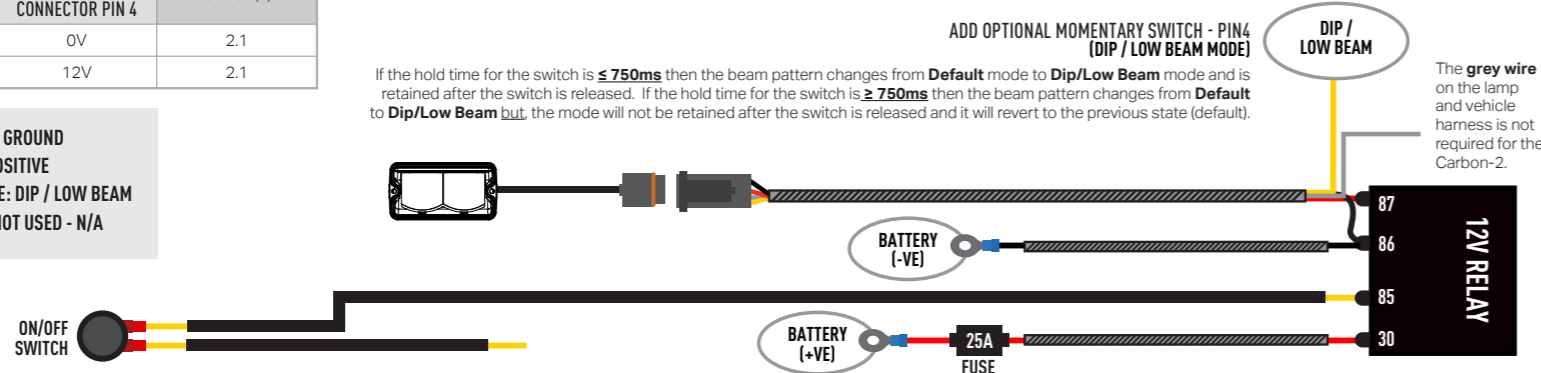
BRANCHEMENT ÉLECTRIQUE | ELEKTRISCHER ANSCHLUSS | ELEKTRISK TILKOPLING | ELEKTRISK KOPPLING | SÄHKÖKYTKENTÄ

LAMP MODE	INPUT SIGNAL	CARBON-2 CURRENT DRAW @ 13.5V (A)
	YELLOW WIRE (DIP / LOW BEAM) CONNECTOR PIN 4	
HIGH BEAM	0V	2.1
DIPPED BEAM	12V	2.1

BLACK WIRE: GROUND
RED WIRE: POSITIVE
YELLOW WIRE: DIP / LOW BEAM
GREY WIRE: NOT USED - N/A

### DEUTSCH DT (4-PIN) | CARBON-2 (GEN3)

If the hold time for the switch is  $\leq 750\text{ms}$  then the beam pattern changes from **Default** mode to **Dip/Low Beam** mode and is retained after the switch is released. If the hold time for the switch is  $\geq 750\text{ms}$  then the beam pattern changes from **Default** to **Dip/Low Beam** but, the mode will not be retained after the switch is released and it will revert to the previous state (default).



ADD OPTIONAL MOMENTARY SWITCH - PIN4  
(DIP / LOW BEAM MODE)

DIP /  
LOW BEAM

The grey wire  
on the lamp  
and vehicle  
harness is not  
required for the  
Carbon-2.

LAMP MODE	INPUT SIGNAL		BEAM PATTERNS		CARBON-4 CURRENT DRAW @ 13.5V (A)	CARBON-6 CURRENT DRAW @ 13.5V (A)
	GREY WIRE (LOW OUTPUT) CONNECTOR PIN 3	YELLOW WIRE (DIP / LOW BEAM) CONNECTOR PIN 4	HIGH BEAM / BOOST % LUMEN OUTPUT	DIP / LOW BEAM % LUMEN OUTPUT		
HIGH BEAM	0V	0V	100	0	4.1	6.5
HIGH BEAM (REDUCED OUTPUT) *	12V	0V	25	0	1	1.6
DIPPED BEAM	0V	12V	0	100	4.1	6.5
DIPPED BEAM (REDUCED OUTPUT)	12V	12V	0	25	1	1.6

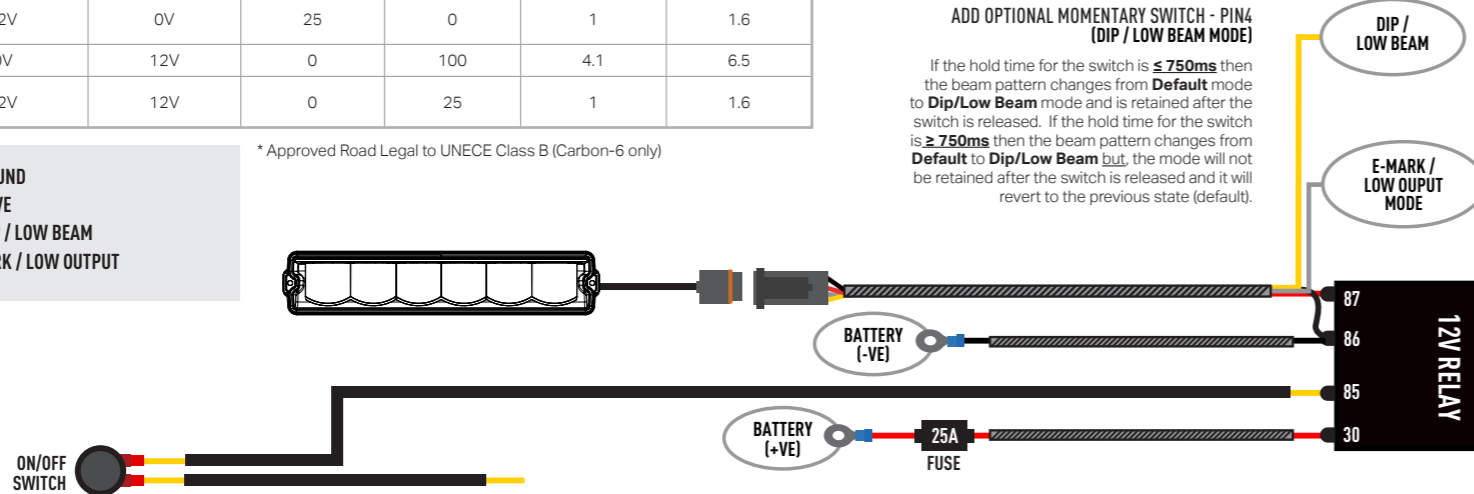
\* Approved Road Legal to UNECE Class B (Carbon-6 only)

BLACK WIRE: GROUND
RED WIRE: POSITIVE
YELLOW WIRE: DIP / LOW BEAM
GREY WIRE: E-MARK / LOW OUTPUT

### DEUTSCH DT (4-PIN) | CARBON-4 AND CARBON-6 (GEN3)

ADD OPTIONAL MOMENTARY SWITCH - PIN4  
(DIP / LOW BEAM MODE)

If the hold time for the switch is  $\leq 750\text{ms}$  then the beam pattern changes from **Default** mode to **Dip/Low Beam** mode and is retained after the switch is released. If the hold time for the switch is  $\geq 750\text{ms}$  then the beam pattern changes from **Default** to **Dip/Low Beam** but, the mode will not be retained after the switch is released and it will revert to the previous state (default).



DIP /  
LOW BEAM

E-MARK /  
LOW OUTPUT  
MODE

## PWM INFORMATION (CARBON-4 AND CARBON-6 ONLY)

INFORMATIONS PWM | PWM-INFORMATIONEN | PWM-INFORMASJON | PWM-INFORMATION | PWM-TIEDOT

**EN** Some race teams may wish to activate the different modes of these lamps by using a PWM signal. PIN 3 is PWM capable, so race teams should use a 100Hz PWM frequency, in order to obtain different beam patterns. See table.

**FR** Certains équipes de course peuvent souhaiter activer les différents modes de ces lampes en utilisant un signal PWM. La broche 3 est capable de PWM, donc les équipes de course devraient utiliser une fréquence PWM de 100 Hz, afin d'obtenir différents motifs de faisceau. Voir le tableau.

**DE** Einige Rennteams möchten möglicherweise die verschiedenen Modi dieser Lampen durch Verwendung eines PWM-Signals aktivieren. PIN 3 ist PWM-fähig, daher sollten Rennteams eine PWM-Frequenz von 100 Hz verwenden, um unterschiedliche Lichtmuster zu erhalten. Siehe Tabelle.

**NO** Noen raceteam kan ønske å aktivere de forskjellige modusene til disse lampene ved å bruke et PWM-signal. PIN 3 støtter PWM, så raceteam bør bruke en PWM-frekvens på 100 Hz for å oppnå forskjellige lysmønstre. Se tabellen.

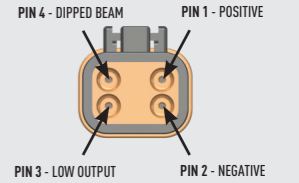
**SE** Vissa racelag kan vilja aktivera de olika lägena för dessa lampor genom att använda en PWM-signal. PIN 3 stöder PWM, så racelag bör använda en PWM-frekvens på 100 Hz för att få olika ljusmönster. Se tabellen.

**FI** Jotkut kilpitiimit voivat haluta aktiivoida näiden lamppujen eri tilat käyttämällä PWM-signaalia. Pinni 3 tukee PWM:ää, joten kilpitiimien tulisi käyttää 100 Hz:n PWM-taajuutta saadakseen erilaisia valomalleja. Katso taulukko.

### PWM SIGNAL REQUIREMENTS

PWM SIGNAL FREQUENCY	100 Hz
TOLERANCE DUTY CYCLE	±2%

### DEUTSCH DT (4-PIN) CONNECTOR



INPUT SIGNAL	BEAM PATTERNS	CARBON-4 CURRENT DRAW @ 13.5V (A)	CARBON-6 CURRENT DRAW @ 13.5V (A)		
				12V PWM SIGNAL ON PIN 3 (LOW OUTPUT) DUTY CYCLE %	VOLTAGE ON PIN 4 (DIP / LOW BEAM)
0	0V	100	0	4.1	6.5
10	0V	90	0	3.7	5.9
18	0V	80	0	3.3	5.2
26	0V	70	0	2.9	4.6
34	0V	70	30	4.1	6.5
42	0V	70	40	4.6	7.2
50	0V	60	60	5	7.8
58	0V	40	70	4.6	7.2
66	0V	30	70	4.1	6.5
74	0V	0	80	3.3	5.2
82	0V	0	90	3.7	5.9
90	0V	0	100	4.1	6.5
100	0V	25	0	1	1.6
0	12V	0	100	4.1	6.5
10	12V	0	95	3.9	6.2
18	12V	0	90	3.7	5.9
26	12V	0	85	3.5	5.5
34	12V	0	80	3.3	5.2
42	12V	0	75	3.1	4.9
50	12V	0	70	2.9	4.6
58	12V	0	65	2.7	4.2
66	12V	0	60	2.5	3.9
74	12V	0	55	2.3	3.6
82	12V	0	50	2.1	3.3
90	12V	0	45	1.9	2.9
100	12V	0	25	1	1.6