

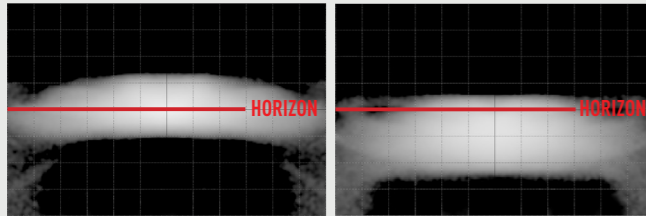
BEAM PATTERNS

MOTIFS DE FAISCEAU | STRAHLBILDER | STRÅLEMØNSTRE | STRÅLKONFIGURATIONER | VALOMALLIT

CARBON DRIVE

HIGH BEAM / BOOST

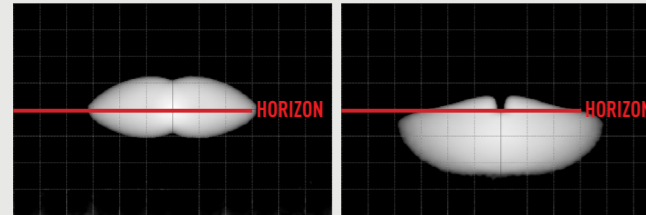
DIP / LOW BEAM



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

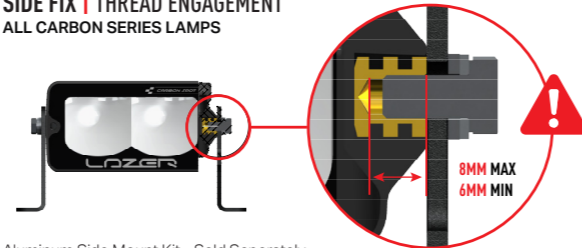


WIRING KITS

MOUNTING INSTRUCTIONS

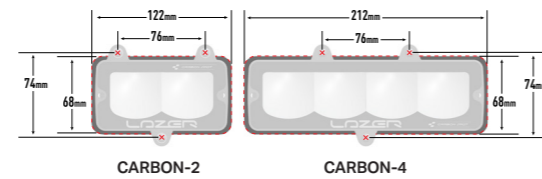
INSTRUCTIONS DE MONTAGE | MONTAGEANLEITUNG | MONTERINGSANVISNINGER | MONTERINGSANVISNINGAR | ASENNUSOHJEET

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

We appreciate your purchase of a Lazer Lamps product, and value your feedback. If you would like to leave feedback on your Lazer experience, please head to the relevant product page on our website www.lazerlamps.com.

T +44 (0) 1992 677374
E sales@lazerlamps.com

Lazer Lamps Ltd, Calder House, Central Road
Harlow, Essex, CM20 2ST, UK

MADE IN THE UK /LAZERLAMPS

LAZER
HIGH PERFORMANCE LIGHTING

**CARBON
SERIES**

INSTRUCTIONS

INSTRUCTIONS | ANLEITUNG | INSTRUKSJONER
| INSTRUKTIONER | KÄYTTÖOHJE

ELECTRICAL CONNECTION

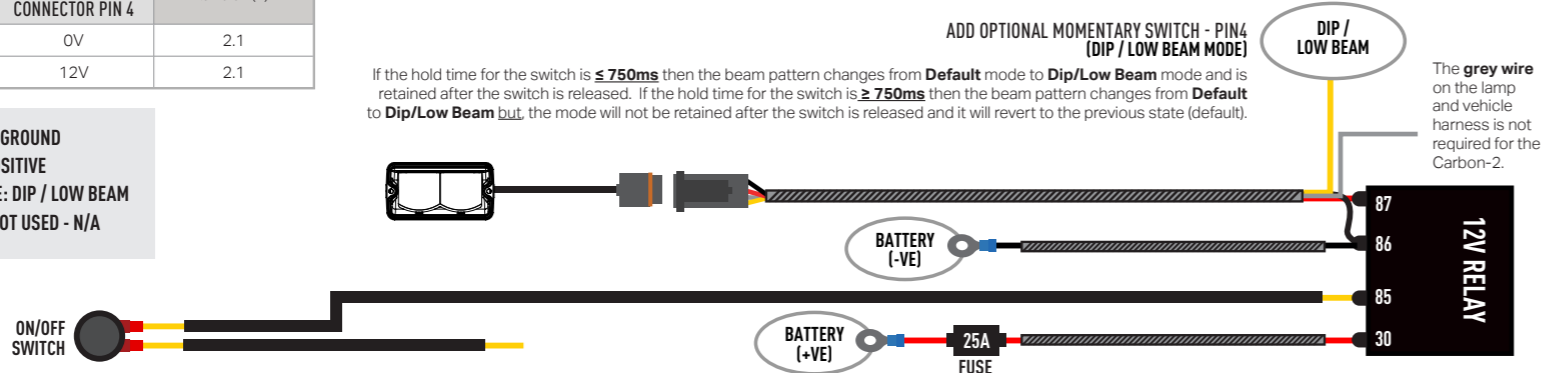
BRANCHEMENT ÉLECTRIQUE | ELEKTRISCHER ANSCHLUSS | ELEKTRISK TILKOPLING | ELEKTRISK KOPPLING | SÄHKÖKYTKENTÄ

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

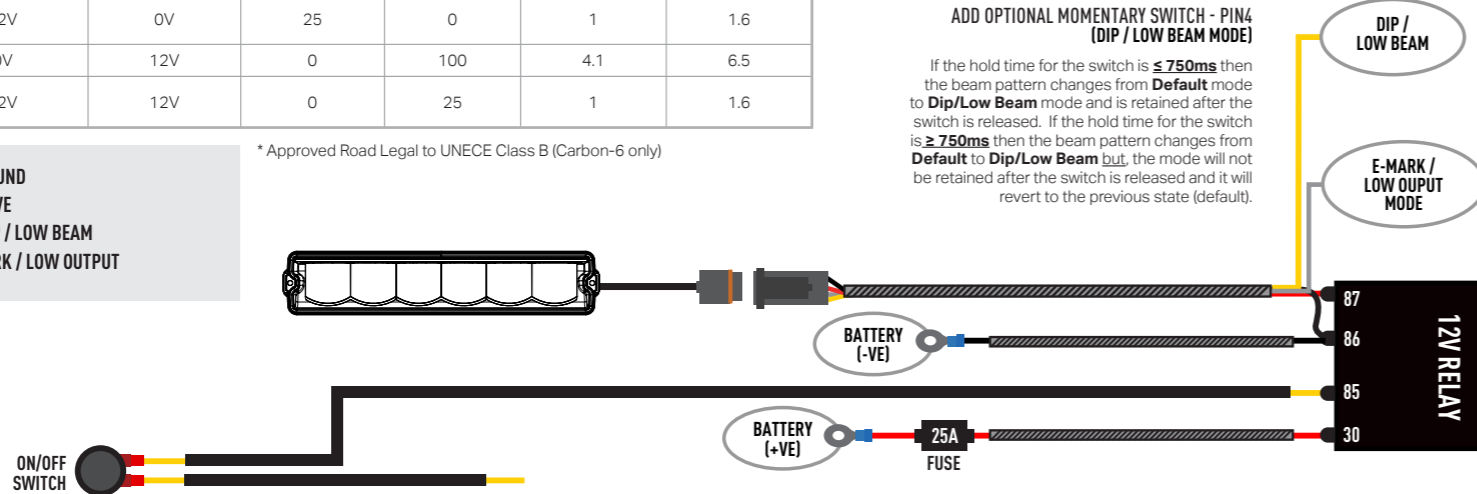
* Approved Road Legal to UNECE Class B (Carbon-6 only)

- █ 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.

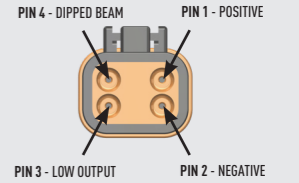
SE Vissa racelag kan vilja aktivera de olika lägena för dessa lampor genom att använda en PWM-signal. PIN 3 stöder PWM, så racelag bör använda en PWM-frekvens på 100 Hz för att få olika ljusmönster. Se tabellen.

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	VOLTAGE ON PIN 4 (DIP / LOW BEAM)	BEAM PATTERNS		CARBON-4 CURRENT DRAW @ 13.5V (A)	CARBON-6 CURRENT DRAW @ 13.5V (A)
		HIGH BEAM / BOOST % LUMEN OUTPUT	DIP / LOW BEAM % LUMEN OUTPUT		
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