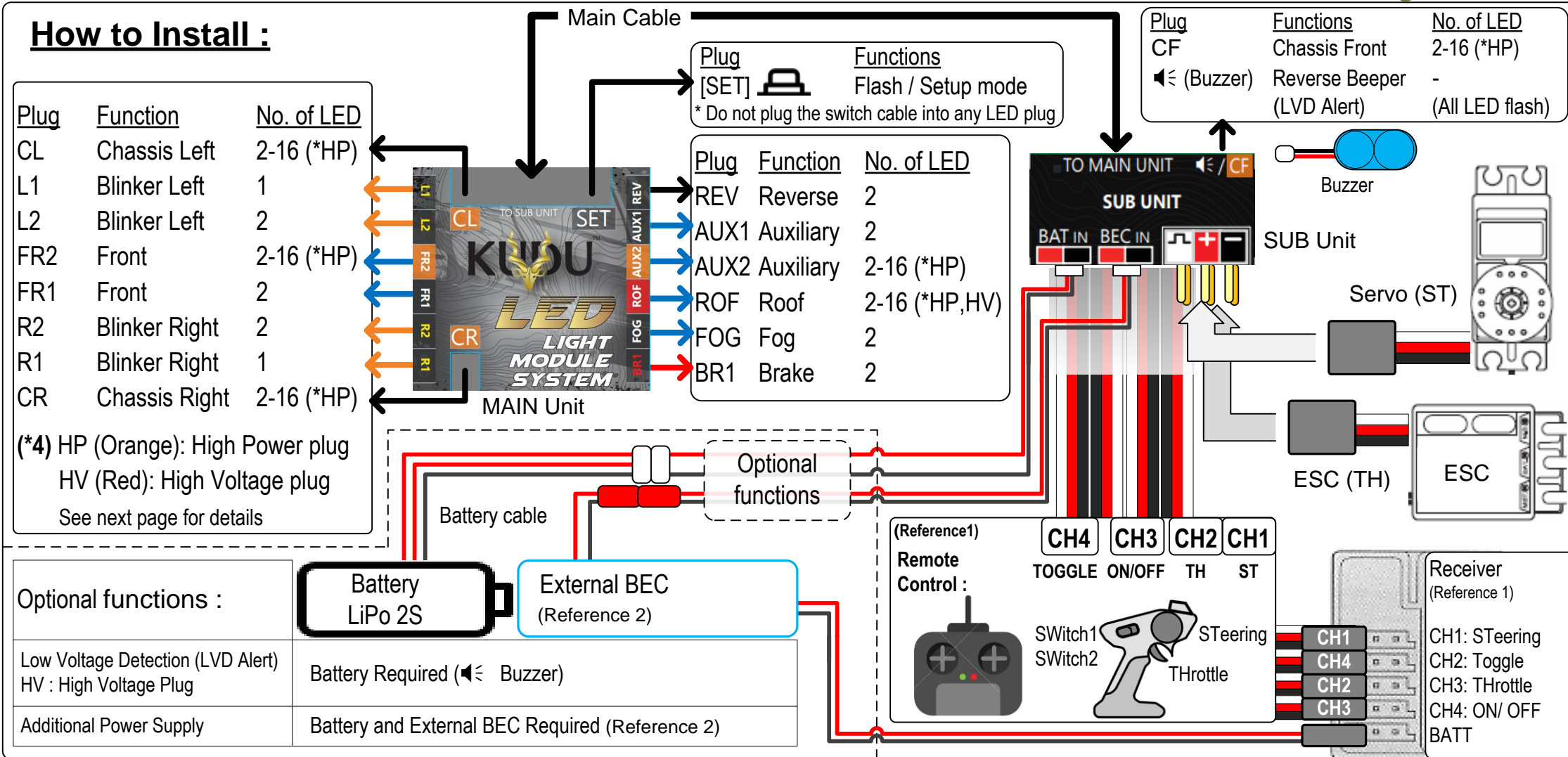


KUDU™ LED Light Module System for BRX02 Defender

How to Install :



Start to use :

- Connect all desired Channels (CH1 - 4), then ESC, Servo before Power ON ESC
- Power ON Transmitter first (Power OFF last !)
- Power ON ESC, the LED System (BR1) will flash for around 5 seconds (Channel 2 (TH) AUTO-CALIBRATE)

PLEASE KEEP Channel 2 in NEUTRAL POSITION during this Period UNTIL BR1 STOPS FLASHING

- See below table for all operations :

The kit includes :

	QTY :	4x4	6x6
1) MAIN unit	1	←	
2) SUB unit	1	←	
3) Main cable	1	←	
4) SET Switch cable	1	←	
5) Battery cable (LiPo 2S)	1	←	
6) Buzzer	1	←	
7) User manual (EN)	1	←	
8) LED Extend cable (20cm)	-		4

LED cables (P : Parallel) :

9) Left & Right - 3mm Yellow (2P)	2	←
10) Left & Right - 3mm Yellow (1P)	2	←
11) Front 1 - 5mm Cool White (2P)	1	←
12) Front 2 - 3mm Cool White (2P)	1	←
13) Reverse - 3mm Cool White (2P)	1	←
14) Brake - 3mm Red (2P)	1	←
15) Fog - 5mm Cool White (4P)	1	←

Specification :

- Input Voltage : 5 - 7.4V (Powered by ESC's BEC)
- Battery type for LVD : LiPo 2S (User define: MAX 12.6V)
- Support RC System : All Normal Response RC Systems: PCM/ PPM (FM)/ AM
Some High Response RC Systems, for example : Futaba : FASST-C1, C2 / S-FHSS / T-FHSS (SR)
Sanwa : NOR / SHR Mode
- Dimension (Excludes cables) :
Main Unit : 45mm (L), 41.3mm (W), 11.7mm (H)
Sub Unit : 24.5mm (L), 18.5mm (W), 12mm (H)
- Weight : MAIN/ SUB Unit : 14g / 10g

Input Channel VS FUNCTIONS :

Input Channel (* 1)	Function	LED Output	Detail Functions	Remote's Operation (Reference 1)	Active range
CH1 ST (Steering)	Left / Right Blinkers	L1, L2, R1, R2	Left / Right turns signal		>25%
CH2 TH (Throttle)	Brake	BR1	LED 100% ON when braking, otherwise = Idle stage		>25%
	Reverse	REV	ON when 2nd time brake		2nd time Brake
	Auto Hazard	L1, L2, R1, R2	Enable when TH idle over 6 secs (Manual hazard NOT selected)		Idle (>6 sec)
CH3 ON / OFF Switch	Manual Hazard	L1, L2, R1, R2	L1, L2, R1, R2 Flashing		From MIN, MAX or Neutral position :
CH4 TOGGLE Switch	Smart Toggle Switch LED ON / OFF	BR1 AUX1-2, ROF, FOG, FR1, FR2 CF, CL, CR	Toggle 0: BR1 Toggle 1: BR1 Toggle 2: BR1 Toggle 3: BR1 Toggle 4: BR1		↔30% or ↑↓30%
[SET]	Flash Mode	All	Press SET anytime after Power ON, total 10 flashing styles		Press SET Switch

Reference 1 :

Connection examples :

Futaba T6EX (Stick Mode 2)

T6EX	KUDU	Function
CH1 Aileron	CH1	Left, Right
CH2 Elevator	CH4	Toggle
CH3 Throttle	CH2	Throttle
*CH4 Rudder	CH3	ON/ OFF
CH5 / 6	CH3/ 4	ON/ OFF, Toggle

Futaba 4YWD

CH1	CH1	Left, Right
CH2	CH2	Throttle
CH3	CH3	Toggle
*CH4	CH4	ON/ OFF

*CH4 may be used for Gear box Servo

Reference 2 :

External BEC (Sell separately)	Part Number
5 - 6V, 3A type	UBEC-3A
5 - 6V, 5A type	UBEC-5A

Caution:

This LED system will increase the load of BEC. Some radio control system(s) or ESC(s) MAY NOT works with this LED system normally !!

Notes (*1): Function(s) is/ are enabled ONLY when the Channel(s) is/ are connected BEFORE POWER ON.

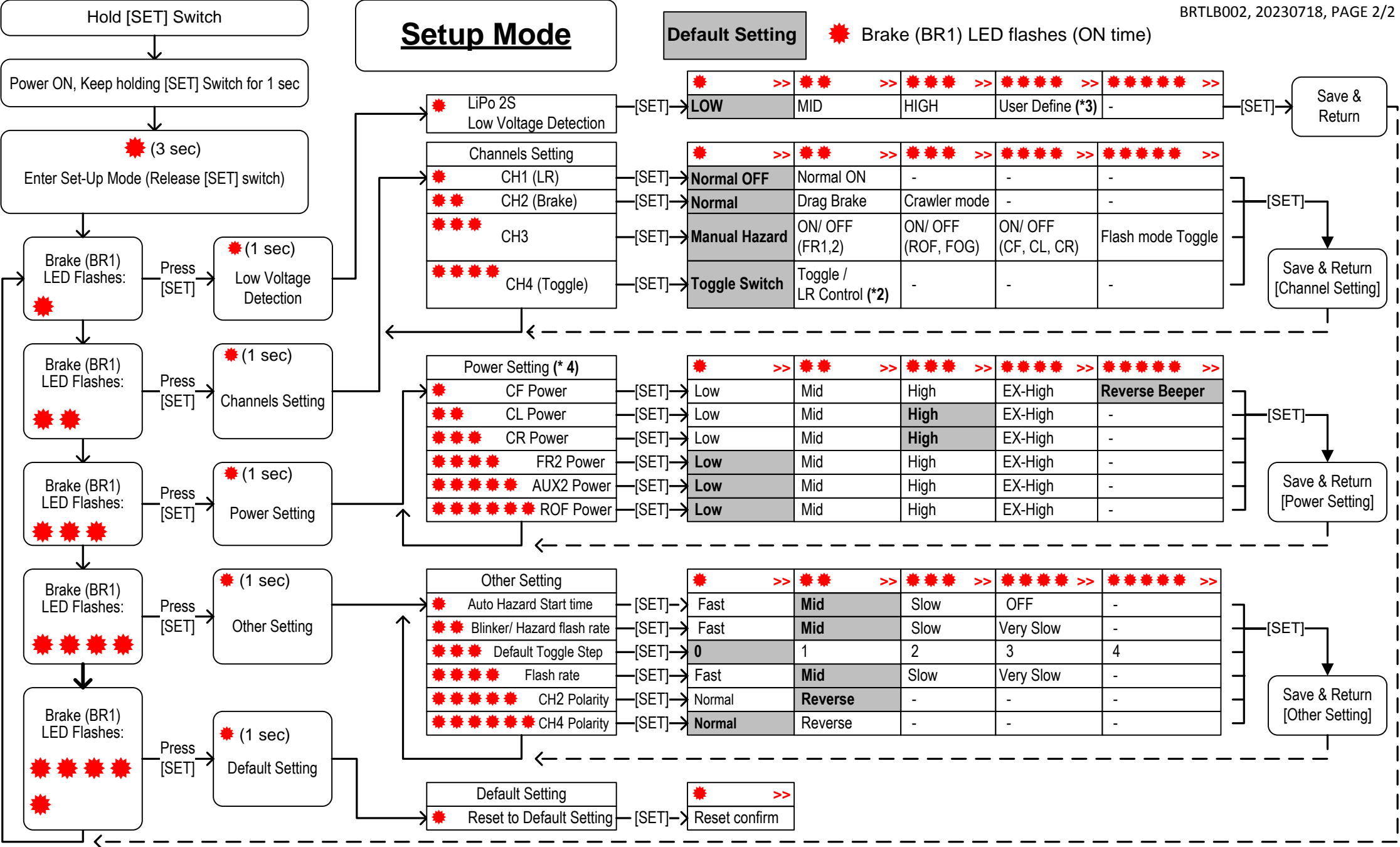


Table 1: Setup Mode

Set up Mode	Default Setting	Brake (BR1) LED flashes time				
LiPo 2S Low Voltage Detection	Low 6.2V	Middle 6.8V	High 7.6V	User define MAX 12.6V (* 3)	-	
Channels Setting						
CH1 (LR)	Normal OFF	Normal ON	-	-	-	
CH2 (Brake)	Normal	Drag Brake	Crawler mode	-	-	
CH3	Manual Hazard	OnOff (FR1, 2)	OnOff (ROF, FOG)	OnOff (CF, CL, CR)	Flash Mode TOGGLE	
CH4 (Toggle)	Toggle	Toggle / LR Control (* 2)				
Power Setting (* 4)						
CF Chassis Front	Low Power	Mid Power	High Power	Extra High Power	Buzzer (REV Beeper)	
CL Chassis Left	Low Power	Mid Power	High Power	Extra High Power	-	
CR Chassis Right	Low Power	Mid Power	High Power	Extra High Power	-	
FR2	Low Power	Mid Power	High Power	Extra High Power	-	
AUX2	Low Power	Mid Power	High Power	Extra High Power	-	
ROF	Low Power	Mid Power	High Power	Extra High Power	-	
Other Setting						
Auto Hazard start time	Fast	Middle	Slow	Auto Hazard OFF	-	
Turns / Hazard flash rate	Fast	Middle	Slow	Very Slow	-	
Default TOGGLE step	STEP	0 >>	1 >>	2 >>	3 >>	4 >>
	AUX1	OFF	ON			
	AUX2					
	ROF			ON		
	FOG				ON	
	FR1			OFF		ON
	FR2				OFF	
	CF					OFF
CL,CR						
BR1	Idle 0%	Idle 15%	Idle 15%	Idle 15%	Idle 15%	
Flash rate	Fast	Middle	Slow	Very Slow	-	
CH2 Polarity	Normal	Reverse	-	-	-	
CH4 Polarity	Normal	Reverse	-	-	-	
Default Setting						
Default Setting	Reset to Default Setting then Restart					

Notes (* 2):

TOGGLE / LR Control (**/ ***/ **)		Remote's Operation
Function		Active range
TOGGLE Switch / LR Control		Toggle start >25% (>1 sec) LR Control: 0-25% : OFF >25% : ON

Notes:

(* 3): A DISCHARGED battery can be connected. The battery voltage Level will be stored as Low Voltage Detection (LVD) Level, Battery Type will be ignored

(* 4): Power Setting
 HV: High voltage Plug : 7.4 - 12.6V
 HP: High Power Plug :

Power	LOW	MID	HIGH	EX-HIGH
Output current	40mA	100mA	150mA	250mA
Drive LED 20mA each	2 pcs	4-6 pcs	8-10 pcs	12-16 pcs
* External BEC	Not MUST		3 / 5A	5A

* If using HIGH / EX-HIGH power option or ESC's BEC output is lower than 3A it's **required** to add a 3 / 5A External BEC (See Reference 2)

Caution:

Using OVER current to drive LEDs will burn or shorten the life of LEDs !

