





SQ-1 UNIVERSAL HOBBY LIGHTING CONTROLLER INSTALLATION INSTRUCTIONS FOR FW3.1-16

Please read instructions completely before attaching LEDs to RC.



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LED INSTALLATION

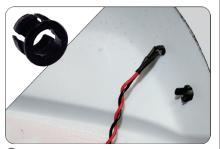


Choose where to install, what size, and what color LEDs are to be used. Next, choose the desired SQ-1 blink MODE (See Blink Mode Section page 5).

NOTE – The blink MODE indicates where to plug each LED into the SQ-1 controller.



2. Drill Holes for LED Holders. Be careful to not drill the hole too large. NOTE - You can purchase a hand drill from your local RC hobby store. Follow carefully all safety instructions provided with the drill.

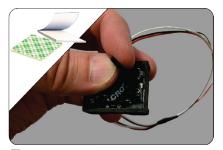


3. Snap LED Holders into Holes.

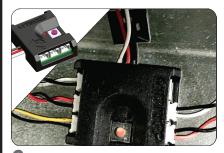


4. Insert LEDs into LED Holders. It is recommended to apply a pliable glue, such as Zap Goo or Shoe Goo, liberally making sure the glue contacts the body, the LED and LED wires. The glue should strengthen the wires and help the LEDs last longer.

NOTE - The proper glue may be purchased from an RC hobby store.



5. Attach SQ-1 Controller to vehicle using it's double back adhesive or using the breakaway mounting tabs.



Connect LEDs to the SQ-1 Controller NOTE: Connect each LED depending on the desired blink MODE. See Blink Mode Section on page 5.

FEATURES & FUNCTIONS

MODE LED

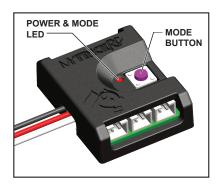
When power is applied to the SQ-1, the *Power LED will blink*. The number of LED blinks indicates the mode that the controller is set to. If you're in MODE 1 the LED will blink one time then stay on steady. In MODE 2, the LED will blink twice, MODE 3, three times, and so on.

MODE Button

To change the MODE, simply press the MODE Button.

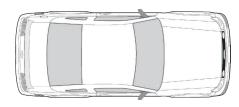
NOTES:

- If there is no Power LED, then the controller may be set to MODE 0 ALL OFF and you should switch to a different mode.
- When SQ-1's power is restarted, it will remember the MODE it was last set to.
- If you plug the SQ-1's power cable backwards into the receiver or 9V Battery, no damage will occur but the controller won't behave correctly. To fix, just plug in correctly.
- You can splice (cut and solder) up to four LEDs into one SQ-1 output port. Splicing does void the warranty of the LEDs, but this feature offers more options for your RC vehicle.
- If you wish to do this then follow these simple guidelines:
 - · Solder all LEDs in parallel.
 - All LEDs in the cable must be the same color.
 - · Don't splice more than four LEDs into a single port.



POWER CONNECTIONS & SETTINGS

USE THIS DIAGRAM TO ASSIST IN THE LAYOUT OF YOUR LIGHTING AND FOR ANY NOTES.











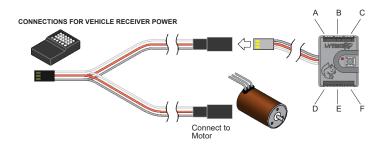
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LEDs LEGEND	BRKL	BRAKE LIGHTS ONLY (brake only, no tail lights)
HDLT HEAD LIGHTS	TAIL	TAIL LIGHTS ONLY (dimmed lights w/ no brake light function)
REVL REVERSE LIGHTS	EXST	EXHAUST

BLINK MODES

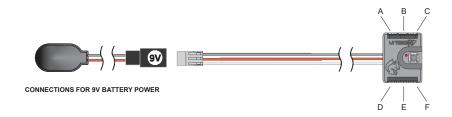
MODE 0 ALL OFF

Connections for All LEDs OFF



MODE 0

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	OFF	OFF	OFF	OFF	OFF
HEADLIGHT	В	OFF	OFF	OFF	OFF	OFF
RUNNING	С	OFF	OFF	OFF	OFF	OFF
REVERSE	D	OFF	OFF	OFF	OFF	OFF
TAIL/BRAKE	Е	OFF	OFF	OFF	OFF	OFF
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF

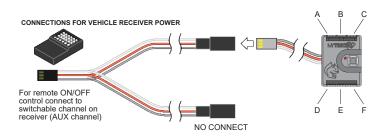


PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	OFF	OFF	OFF	OFF	OFF
HEADLIGHT	В	OFF	OFF	OFF	OFF	OFF
RUNNING	С	OFF	OFF	OFF	OFF	OFF
REVERSE	D	OFF	OFF	OFF	OFF	OFF
TAIL/BRAKE	Ε	OFF	OFF	OFF	OFF	OFF
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF

Connections for All LEDs ON (LEDs on steady at full brightness)

NOTE

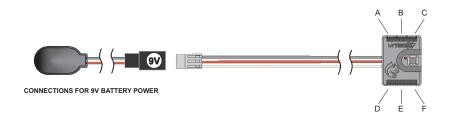
If the SQ-1 is powered off the receiver and MODE 1 is not turning on, then toggle the 3rd channel on transmitter.



MODE 1

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
HEADLIGHT	В	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
RUNNING	С	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
REVERSE	D	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
TAIL/BRAKE	Е	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
BACKFIRE	F	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT

ALL LIGHTS SWITCHABLE FROM 3RD CHANNEL ON RECEIVER

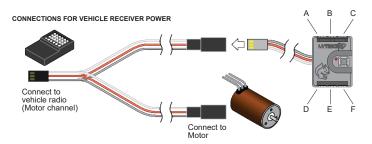


MODE 1

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
HEADLIGHT	В	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
RUNNING	С	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
REVERSE	D	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
TAIL/BRAKE	E	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
BACKFIRE	F	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT

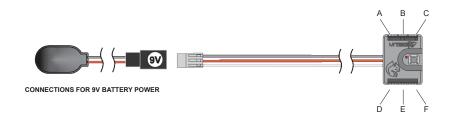
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- After 15 secs of inactivity
 ports B, C, and D switch to HAZARD LIGHTS,
 ports E and F OFF until you start driving again.



MODE 2

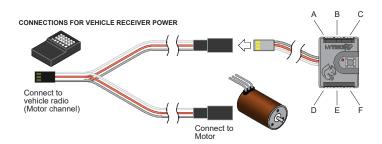
PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	DIM	DIM	DIM	DIM	OFF
HEADLIGHT	В	DIM	DIM	DIM	DIM	OFF
RUNNING	С	DIM	DIM	DIM	DIM	FLASH
TAIL/BRAKE	D	DIM	BRIGHT	DIM	DIM	FLASH
TAIL/BRAKE	Е	DIM	BRIGHT	DIM	DIM	FLASH
BACKFIRE	F	OFF	OFF	OFF	FLASH	OFF



PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	DIM	DIM	DIM	DIM	DIM
HEADLIGHT	В	DIM	DIM	DIM	DIM	DIM
RUNNING	С	DIM	DIM	DIM	DIM	DIM
TAIL/BRAKE	D	DIM	DIM	DIM	DIM	DIM
TAIL/BRAKE	Е	DIM	DIM	DIM	DIM	DIM
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF

MODE 3 DIM HEADLIGHT w/ Tail/Brake, Reverse, and Backfire

- After 15 secs of inactivity
 ports B, C, and D switch to HAZARD LIGHTS,
 ports E and F OFF until you start driving again.



MODE 3

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	DIM	DIM	DIM	DIM	OFF
HEADLIGHT	В	DIM	DIM	DIM	DIM	OFF
RUNNING	С	DIM	DIM	DIM	DIM	FLASH
REVERSE	D	OFF	OFF	BRIGHT	OFF	OFF
TAIL/BRAKE	E	DIM	BRIGHT	DIM	DIM	FLASH
BACKFIRE	F	OFF	OFF	OFF	FLASH	OFF



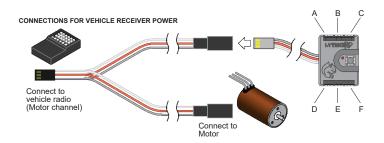
MODE 3

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	DIM	DIM	DIM	DIM	DIM
HEADLIGHT	В	DIM	DIM	DIM	DIM	DIM
RUNNING	С	DIM	DIM	DIM	DIM	DIM
REVERSE	D	OFF	OFF	OFF	OFF	OFF
TAIL/BRAKE	Ε	DIM	DIM	DIM	DIM	DIM
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF

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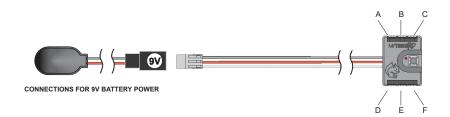
MODE 4 FULL BRIGHT w/ Tail/Brake, Reverse, and Backfire

- After 15 secs of inactivity
 ports B, C, and D switch to HAZARD LIGHTS,
 ports E and F OFF until you start driving again.



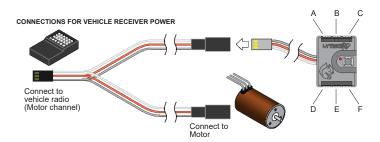
MODE 4

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	BRIGHT	BRIGHT	BRIGHT	BRIGHT	OFF
HEADLIGHT	В	BRIGHT	BRIGHT	BRIGHT	BRIGHT	OFF
RUNNING	С	DIM	DIM	DIM	DIM	FLASH
REVERSE	D	OFF	OFF	BRIGHT	OFF	OFF
TAIL/BRAKE	Е	DIM	BRIGHT	DIM	DIM	FLASH
BACKFIRE	F	OFF	OFF	OFF	FLASH	OFF



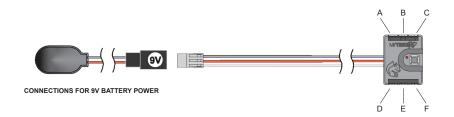
PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
HEADLIGHT	В	BRIGHT	BRIGHT	BRIGHT	BRIGHT	BRIGHT
RUNNING	С	DIM	DIM	DIM	DIM	DIM
REVERSE	D	OFF	OFF	OFF	OFF	OFF
TAIL/BRAKE	Ε	DIM	DIM	DIM	DIM	DIM
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF

- After 15 secs of inactivity
 ports B, C, and D switch to HAZARD LIGHTS,
 ports E and F OFF until you start driving again.



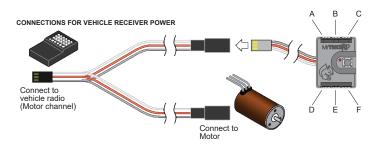
MODE 5

			1110000			
PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
HEADLIGHT	В	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
RUNNING	С	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
REVERSE	D	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
TAIL/BRAKE	Е	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF



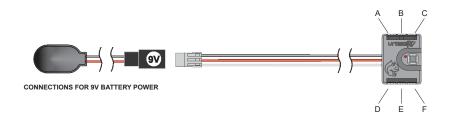
PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
HEADLIGHT	В	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
RUNNING	С	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
REVERSE	D	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
TAIL/BRAKE	Е	RANDOM	RANDOM	RANDOM	RANDOM	RANDOM
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF

- After 15 secs of inactivity
 ports B, C, and D switch to HAZARD LIGHTS,
 ports E and F OFF until you start driving again.



MODE 6

PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	STROBE	STROBE	STROBE	STROBE	OFF
HEADLIGHT	В	STROBE	STROBE	STROBE	STROBE	OFF
RUNNING	С	DIM	DIM	DIM	DIM	FLASH
REVERSE	D	OFF	OFF	BRIGHT	OFF	OFF
TAIL/BRAKE	Ε	DIM	BRIGHT	DIM	DIM	FLASH
BACKFIRE	F	OFF	OFF	OFF	FLASH	OFF



PORT		NORMAL	BRAKE	REVERSE	BACKFIRE	HAZARD
HEADLIGHT	Α	STROBE	STROBE	STROBE	STROBE	STROBE
HEADLIGHT	В	STROBE	STROBE	STROBE	STROBE	STROBE
RUNNING	С	DIM	DIM	DIM	DIM	DIM
REVERSE	D	OFF	OFF	OFF	OFF	OFF
TAIL/BRAKE	Е	DIM	DIM	DIM	DIM	DIM
BACKFIRE	F	OFF	OFF	OFF	OFF	OFF