LIGHTS
USER'S MANUAL

EQUINOX LED

ECLIPSE HID

TRAIL TECH
technology for the trail

TABLE OF CONTENTS

Table of Contents:

Please read this user's manual before attempting to install or use Trail Tech lighting products.

IMPORTANT

Trail Tech Lighting:

Trail Tech brings functionality and life to your motor vehicle with high quality and innovation. To ensure you enjoy long and trouble-free operation, this User's Manual contains valuable information about how to operate and maintain your lights properly.

Please read this manual carefully.

Please record important information:

Whenever you call to request service for Trail Tech lights, you need the date of purchase, dealer's name, address, and telephone number. Warranty service requires proof of purchase.

PURCHASE DATE   _____

DEALER NAME   _____

DEALER ADDRESS   _____

DEALER PHONE   _____

Keep this book and sales slip together for future reference.

PRECAUTIONS

WARNING:

When using Trail Tech Lighting products, follow basic precautions:

• The lights will become warm during operation. Allow 5-10 mph air flow for proper cooling.

• Do not wash lights with high pressure water / pressure washer.

• Avoid contact with gasoline, degreasers or other chemical cleaners.

• Altering a Trail Tech lighting product in any way will void warranty.

• HIGH VOLTAGE! Disconnect from power before service or maintenance, including lamp replacement. Extremely high voltage shock danger.

• Trail Tech lights are only servicable by qualified technicians.

• Use Trail Tech battery or vehicle power with Trail Tech helmet lights. Use of third-party Li-Ion or NiMH batteries will void warranty.

• Use a fuse. Trail Tech lights should use a 10-20 amp fuse as close to the battery as possible on the (+)positive terminal side.

• **Respect the environment.**

• **Pay attention to the trail.**

60mm LED Light

LED Overview:

Trail Tech LED lights offer high performance and low power draw in a small package. Perfect as lightweight helmet lights, lights for small machines, or auxiliary lights for large machines. The blue button on the back of the light is a brightness select switch: choose between high, medium or low brightness. A 10W LED puts out roughly the same amount of light as a 40W halogen lamp.

- Beam Color: 6000K
- Beam Angle: 10º
- Power Consumption: High 10W / Med. 6W / Low 3W
- Lumens: 1050 Lumens (Hi mode)
- Front Lens: Hardened Glass
- Housing Material: Billet Aluminum
- Physical Dimensions: 61 x 82 mm (2.4 x 3.2")
- Weight: 11.5 oz. (324 g)
- Power Requirement: 12 V DC, Polarity Protected

LED Post Mounted:

Post mounted lights are well suited for custom applications.

- Mounts in any M10 (3/8") hole.

C112-SX-LB (Shown Above)

60mm LED Helmet Light Kit

Includes: 60mm LED, Battery, Charger, Power Harness and Mounts

C112-SX

60mm LED Helmet Light

Includes: 60mm LED, Power Harness, and Mounts

ECLIPSE HID SCMR16

SCMR16 Overview:

Trail Tech SCMR16 HID lights are optimized for performance. Trail Tech HID lights output 3 times the amount of light of Halogen per watt of power input. SCMR16 lights are the perfect balance of size and power.

- Color Temperature: 6500K
- Reflectors: 12º Spot, 36º Flood
- Power Consumption: 30 Watt
- 30 Watt Lumens: 1850 Lumens
- Auto-Restrike: Auto-Restrike Enabled
- Housing Diameter: 66mm (2.6")
- Housing Depth: 103mm (4")
- Weight: 365g (13 oz.)
- Lamp Diameter: 50.8mm (2")

SCMR16 Post Mounted

Post mounted lights are well suited for custom applications.
- Mounts in any 3/8" hole.

SCMR16 Bar/Flat Mounts:

• Fits 7/8" & 1-1/8" or 1" & 1-1/4" Bars
• Mounts to any flat surface.
• Full rotation and pivot.

SCMR16 Helmet Lights:

• Light shines where you look.
• Hot-swap to bar mounts.

SCMR16 on Barclamps:

Mount SCMR16 lights to Trail Tech bar clamps.

• Points lights in the direction the bars are facing.

Frame and Tube Mounts:

Mount SCMR16 to common frame sizes and roll cages.

• Fits 7/8" - 1-1/8" frame sizes.
• Fits 1.5" - 1.75" tube sizes.

ECLIPSE HID SC4

SC4 Overview:

Trail Tech SC4 HID lights are sized for larger vehicles, buggies, UTV's, sand rails, and off-road trucks.

- Color Temperature: 6500K
- Reflector: 22º Driving
- Power Consumption: 40 Watt
- 40 Watt Lumens: 3235 Lumens
- Auto-Restrike: Auto-Restrike Enabled
- Housing Diameter: 105mm (4.1")
- Housing Depth: 117mm (4.6")
- Weight: 510g (18 oz.)
- Lamp Diamter: 95mm (3.75")

SC4 Post- Mount:
- Mounts in M12 (15/32") hole.

Frame/Tube Mount:

Mount to common frame, bumper and roll cages.

- 1.5" or 1.75" frame size
- Rotates 35º left/right.

Extreme Race Light Overview:

For technical terrain racing where track has tight corners and speeds over 50MPH are not common.

Featuring three integrated light switches, easy attachment, on-the-fly aiming, and auto-power-adjust.

RACE WINNER

- Color Temperature: 6500K
- Reflectors: Two SCMR16, one SC4
- Power Consumption: 90-100 Watt
- Foot Candles: 2600 FC
- Auto-Restrike: Auto-Restrike Enabled
- Housing Diameter: 250mm (10")
- Housing Depth: 165mm (6.5")
- Weight: 2kg (4.5 lbs.)

Extreme Race Light:

Ideal for extreme night racing.

- Mounts easily to forks.
- Black, Orange, Red, Blue
- Well-rounded peripheral and forward light output.

8" Race Light Overview:

For desert terrain racing where track is fast and speeds above 50MPH are common. Featuring an integrated light switch, easy attachment and on-the-fly aiming. Quality automotive components with 7075 aluminum frame.

RACE WINNER

- Color Temperature: 4100K
- Reflectors: Automotive Inspired
- Power Consumption: 45 Watt
- Foot Candles: 5300 FC
- Auto-Restrike: Auto-Restrike Enabled
- Housing Diameter: 250mm (10")
- Housing Depth: 165mm (6.5")
- Weight: 2.1kg (4.7 lbs.)

8" Race Light:

Ideal for high speed racing.
- Mounts easily to forks.
- Intense forward light output.
- Also available in halogen.

X2 Motorcycle Headlight:

The Trail Tech Eclipse HID X2 motorcycle headlight features a dual reflector system and a superior performance/price ratio.

RACE WINNER

- Color Temperature: 6500K
- Reflectors: One SCMR16, one SC4
- Power Consumption: 70 Watt
- SCMR16 Lumens: 1850 Lumens
- SC4 Lumens: 3235 Lumens
- Auto-Restrike: Auto-Restrike Enabled
- Housing Height: 315mm (12.4")
- Housing Width: 325mm (12.8")
- Housing Depth: 100mm (3.9")
- Weight: 1100g (38 oz.)

X2:

- 2-inch spotlight (distance lamp) for high speed riding.
- 4-inch driving lamp increases vital peripheral vision used in cornering & technical terrain.
- Available white, black, orange, red, blue, green and yellow graphics.
- Also available in halogen.

ANTI-VIBE POSTS

Anti-Vibe Posts Explained:
ONLY FOR TRAIL TECH HARDWARE

Shape of the Post:

- Anti-vibe posts are not round. They are specially shaped to fit in Trail Tech anti-vibe grommets only (for ATV dashboards.)

Rubber anti-vibe grommets:

- Rubber grommets reduce the amount of motor vibration that reaches the lights.

Special Applications:

- Special applications should use solid-mount posts, which fit in a round hole.

CAUTION:

Rubber anti-vibe grommets:

- Rubber can be damaged.
- When installing, make sure everything is lined up straight and cannot rotate.
- The rubber should not be pinched by the metal nuts and bolts. Damage may occur. Ripping may occur.
- DO NOT OVER-TIGHTEN.

VEHICLE MOUNTING

Vehicle Mounting Overview:

Trail Tech lights can be mounted to vehicles on the frame, handlebars, body or custom positioned. Regardless of location, installation/wiring is similiar.
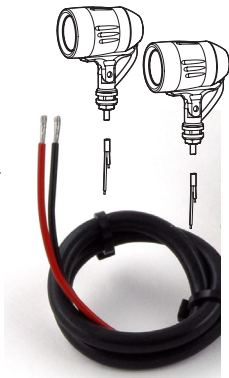
If there is enough power available, Trail Tech lights can be run in addition to stock lights. Some vehicles require lights to run on a separate circuit, because enough power is not produced to run all the lights simultaneously.

Trail Tech HID and LED lights will only run on a DC electrical system (12 volts DC.) A qualified technician can convert most AC systems to DC systems (Banshee, 250R, etc.) Contact your local Trail Tech dealer for details.

Polarity Requirement:

Trail Tech lights have a polarity requirement. The red lead must go to the positive(+) battery terminal or lead, and the negative lead must go to the negative(-) battery terminal or ground.

BACKWARDS WIRING WILL DAMAGE THE LIGHTS!
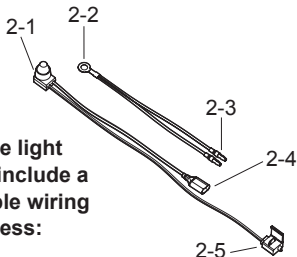
CONNECT VEHICLE MOUNTED LIGHTS TO VEHICLE POWER:

STEP 1: Locate power wire behind the vehicle key switch.

Key Switch (+) Wire Colors:

Raptor 660/700:	Brown/White
Yamaha YFZ450:	Brown
Suzuki Z400:	Orange
Kawasaki KFX700:	Brown
DS650:	White
Honda 400EX:	Black/White
Polaris Predator:	Red/Black
Honda TRX450:	Black

Some light kits include a simple wiring harness:

2-1: Light Switch
2-2: Ring Terminal
2-3: Connectors - male
2-4: Connectors - female
2-5: Waterproof In-line tap

Step 2:

Clip the the in-line tap (2-5) onto the power wire behind the key switch (located in Step 1.) Make sure the wire will be long enough so that the switch (2-1) can be installed in the desired location.

Step 3:

A) Connect one positive(+) lead from each light to the female connectors (2-4.)

B) Connect one negative(-) lead from each light to the connectors (2-3), then connect the ring terminal (2-2) to the negative battery terminal or to frame ground (under a bolt.)
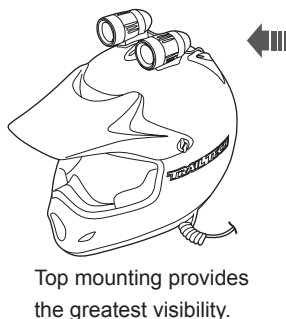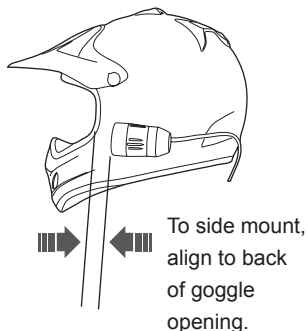
HELMET MOUNTING

WARNING:

Use either Trail Tech Li-Ion batteries with Trail Tech helmet lights, or wire to the vehicle battery using the included connector. Third-party batteries may damage the system. Altering the bungee or any other part of the helmet light system will void warranty.

ATTACH HELMET LIGHTS TO HELMET:

Trail Tech helmet lights are attached with permanent 3M VHB tape. The adhesive will strengthen with time: allow 1 hour before use.

Before attaching the lights, wear the helmet in a riding position. Hold the lights in the desired position to confirm aim angle.

Use the illustrations below to position the lights on the helmet.

To side mount, align to back of goggle opening.

Top mounting provides the greatest visibility.
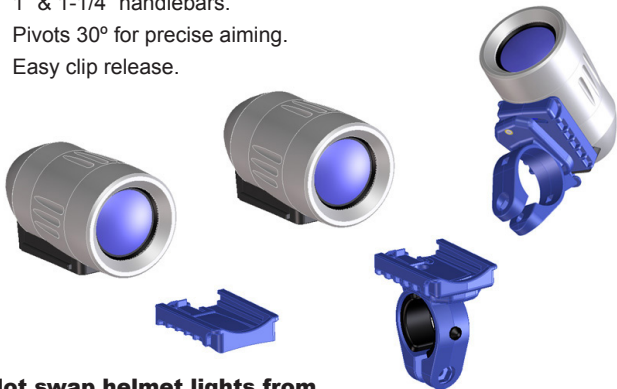
HELMET LIGHT DOCKS:

Included in all helmet light kits.

Helmet Mount Docks:

- Helmet dock attaches to helmet with high-strength VHB tape.
- Hot swap to included bar mount docks.
- Easy clip release.

Handlebar Mount Docks:

- Rubber inserts allow for mounting on 7/8" & 1-1/8" or 1" & 1-1/4" handlebars.
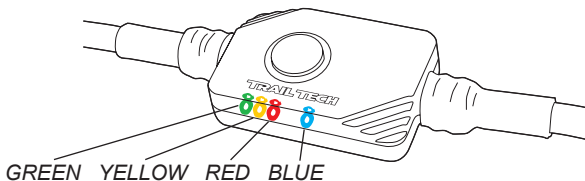- Pivots 30º for precise aiming.
- Easy clip release.

Hot swap helmet lights from helmet docks to handlebar docks.

HELMET LIGHT BUNGEE SWITCH:

The helmet light bungee switch shows on/off status and how much power is left in the battery using colored LED's. Use the soft touch yellow button to turn the lights on and off.

LED helmet lights have a blue button to select brightness on the back of the light housing. Use the bungee switch for on/off operation; the light will remember brightness setting.

GREEN   YELLOW   RED   BLUE

Blue LED:	Connected to Power
Green LED:	14.5V +
Yellow LED:	10.8V
Red LED:	10.25V
Blinking Red LED:	10V
Power Off:	8.5V -
Restrike Enabled:	9.5V +

Regardless of the maximum voltage of the connected battery, the colored LED's will continue to operate at the values listed above. **Removal of the switch or other alterations will void warranty.**
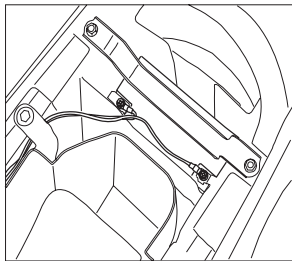
CONNECT HELMET LIGHTS
TO VEHICLE POWER:

Included in all helmet light kits.
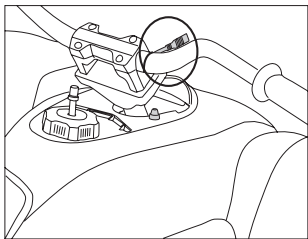
STEP 1: Connect to battery.
Trail Tech helmet lights can be run off of the vehicle lead-acid battery. Attach the battery cable connector shown below to the to the vehicle battery. Remember that there is a polarity requirement: the red wire goes to the positive terminal, and the black wire goes to the negative terminal. Use a 10-20 amp in-line fuse.
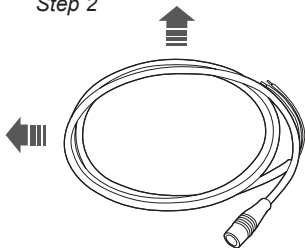
STEP 2: Mount connector to bars. Run the cable under the seat and gas tank to the handlebars. Zip-tie connector to bars for easy access.

Step 2

Step 1

Battery Cable Connector

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WIRE COLORS

Use this table as a general guide when locating wires.

Your model year may have different wire colors.

	KEYSWITCH	HI	LO	GROUND
YAMAHA				
Raptor 700	Brown	Yellow	Green	Black
Raptor 660	Brown	Yellow	Green	Black
YFZ450	Brown	Yellow	Green	Black
Raptor 350	Brown	Yellow	Green	Black
HONDA				
TRX700XX	Pink	Blue/Black	White	Green
TRX450R	Black	Blue	White	Green
TRX400EX	Black/White	Blue	White	Green
TRX300EX	Black/White	Blue	White	Green
TRX250EX	Black/White	Blue	White	Green
KTM				
525XC ATV	Green	Blue	Green	Brown
SUZUKI				
Z400	Orange	Yellow	White	Grey
LTR450	Yellow/Black	Yellow	White	Grey
KAWASAKI				
KFX400	Orange	Yellow	White	Grey
KFX450	Yellow/Red	Yellow	White	Grey
KFX700	Brown			
POLARIS				
PREDATOR	Red/Black	Yellow	Green	Brown
OUTLAW	Red/Black	Yellow	Green	Brown

AVAILABLE POWER

DC POWER:

TRAIL TECH HID & LED LIGHTS REQUIRE DC POWER.

If your vehicle does not have DC power (no battery=no DC), Trail Tech can provide a DC conversion. Stator modifications and a regulator/rectifier are also required for a DC conversion. Contact your local Trail Tech dealer for details. DC conversions should be performed by a qualified technician.

AVAILABLE POWER BY MODEL (STOCK):

ATV's		Motorcycles	
Banshee	70W AC	KTM 2K2	40W AC
250R	70W AC	KTM 2K3	55W AC
Raptor 660	120W DC	KTM 4K3B	55W AC
Predator 500	120W DC	CRF250X/450X	35W DC
Z400/KFX/DVX	70W DC	WR400	55W AC
400EX	70W DC	WR250/450	55W DC
DS650	150W DC	XR 250/400/600/650	55W AC
TRX450R	120W DC	DRZ/KLX	150W AC
YFZ450	26W DC		
Cannondale	20W DC		
Raptor 700	120W DC		
Raptor 80	13W DC		
Predator 90	26W DC		
Outlaw 550/525	120W DC		

www.trailtech.net
360-687-4530

EQUINOX LED

ECLIPSE HID

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