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

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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.
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.

- Respect the environment.

- Pay attention to the trail.

- 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.
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
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: 22° 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 Diameter: 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 35° 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.

- 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.

- 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.

- 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 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 similar.

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

**Step 2:**
Clip 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 MOUNT

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.

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 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.
## WIRE COLORS

Use this table as a general guide when locating wires. Your model year may have different wire colors.

<table>
<thead>
<tr>
<th>KEYSWITCH</th>
<th>HI</th>
<th>LO</th>
<th>GROUND</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YAMAHA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raptor 700</td>
<td>Brown</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Raptor 660</td>
<td>Brown</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>YFZ450</td>
<td>Brown</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>Raptor 350</td>
<td>Brown</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td><strong>HONDA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRX700XX</td>
<td>Pink</td>
<td>Blue/Black</td>
<td>White</td>
</tr>
<tr>
<td>TRX450R</td>
<td>Black</td>
<td>Blue</td>
<td>White</td>
</tr>
<tr>
<td>TRX400EX</td>
<td>Black/White</td>
<td>Blue</td>
<td>White</td>
</tr>
<tr>
<td>TRX300EX</td>
<td>Black/White</td>
<td>Blue</td>
<td>White</td>
</tr>
<tr>
<td>TRX250EX</td>
<td>Black/White</td>
<td>Blue</td>
<td>White</td>
</tr>
<tr>
<td><strong>KTM</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525XC ATV</td>
<td>Green</td>
<td>Blue</td>
<td>Green</td>
</tr>
<tr>
<td><strong>SUZUKI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z400</td>
<td>Orange</td>
<td>Yellow</td>
<td>White</td>
</tr>
<tr>
<td>LTR450</td>
<td>Yellow/Black</td>
<td>Yellow</td>
<td>White</td>
</tr>
<tr>
<td><strong>KAWASAKI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KFX400</td>
<td>Orange</td>
<td>Yellow</td>
<td>White</td>
</tr>
<tr>
<td>KFX450</td>
<td>Yellow/Red</td>
<td>Yellow</td>
<td>White</td>
</tr>
<tr>
<td>KFX700</td>
<td>Brown</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>POLARIS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREDATOR</td>
<td>Red/Black</td>
<td>Yellow</td>
<td>Green</td>
</tr>
<tr>
<td>OUTLAW</td>
<td>Red/Black</td>
<td>Yellow</td>
<td>Green</td>
</tr>
</tbody>
</table>
# 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):

<table>
<thead>
<tr>
<th>ATV’s</th>
<th>Power</th>
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<tbody>
<tr>
<td>Banshee</td>
<td>70W AC</td>
</tr>
<tr>
<td>250R</td>
<td>70W AC</td>
</tr>
<tr>
<td>Raptor 660</td>
<td>120W DC</td>
</tr>
<tr>
<td>Predator 500</td>
<td>120W DC</td>
</tr>
<tr>
<td>Z400/KFX/DVX</td>
<td>70W DC</td>
</tr>
<tr>
<td>400EX</td>
<td>70W DC</td>
</tr>
<tr>
<td>DS650</td>
<td>150W DC</td>
</tr>
<tr>
<td>TRX450R</td>
<td>120W DC</td>
</tr>
<tr>
<td>YFZ450</td>
<td>26W DC</td>
</tr>
<tr>
<td>Cannondale</td>
<td>20W DC</td>
</tr>
<tr>
<td>Raptor 700</td>
<td>120W DC</td>
</tr>
<tr>
<td>Raptor 80</td>
<td>13W DC</td>
</tr>
<tr>
<td>Predator 90</td>
<td>26W DC</td>
</tr>
<tr>
<td>Outlaw 550/525</td>
<td>120W DC</td>
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</table>

<table>
<thead>
<tr>
<th>Motorcycles</th>
<th>Power</th>
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</thead>
<tbody>
<tr>
<td>KTM 2K2</td>
<td>40W AC</td>
</tr>
<tr>
<td>KTM 2K3</td>
<td>55W AC</td>
</tr>
<tr>
<td>KTM 4K3B</td>
<td>55W AC</td>
</tr>
<tr>
<td>CRF250X/450X</td>
<td>35W DC</td>
</tr>
<tr>
<td>WR400</td>
<td>55W AC</td>
</tr>
<tr>
<td>WR250/450</td>
<td>55W DC</td>
</tr>
<tr>
<td>XR 250/400/600/650</td>
<td>55W AC</td>
</tr>
<tr>
<td>DRZ/KLX</td>
<td>150W AC</td>
</tr>
</tbody>
</table>