



**"We're always
behind you."**



Installation Guide

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CM Truck Beds Owner's Manual

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WELCOME TO THE CM TRUCK BEDS FAMILY

Thank you for purchasing your new CM truck bed. You have now joined an ever-growing team of quality conscious truck equipment buyers.

CM Truck Beds is a wholly owned subsidiary of Contract Manufacturer, L.L.C. manufacturing under the name of "CM Truck Beds." Our beds are designed and manufactured to give you many years of reliable service. The combination of quality materials and top craftsmanship continues to put CM Truck Beds above the rest.

The safety and comfort of your cargo is the highest priority in every CM design and manufacturing phase. However, as a responsible truck bed owner, it is your responsibility to be familiar with your new truck bed and to follow safety guidelines and the recommended maintenance instructions to ensure you have many years of safe hauling.

As you begin to use your new CM truck bed, this Owner's Manual will allow you to become more familiar with the operation, maintenance, and care of your truck bed. This manual will reference excerpts from other manufacturer's manuals which have components on CM Truck Beds products.

Disclaimer

All truck beds manufactured by CM Truck Beds are designed to be used within the specific engineering guidelines. It is suggested that all truck beds are to be used as designated by the manufacturer.

CM Truck Beds reserves the right to make any change in color, design or construction as necessary for engineering. All visual representation, specification, and guidelines are based on the latest product information available at the time of this publication. All truck beds manufactured by Contract Manufacturer, L.L.C., d.b.a. "CM Truck Beds" are covered in this publication, with minor exceptions. For more information, call us at 580-564-7537 or, you can write us at 103 Titan Rd, Kingston, OK 73439, e-mail: customerservice@cmtrailers.com, web site: www.cmtruckbeds.com.

CM Truck Beds Manufacturer's Limited Warranty Bailment Distributor:

MANUFACTURER'S LIMITED WARRANTY ON TRUCK BED PRODUCTS MANUFACTURED BY CONTRACT MANUFACTURER, L.L.C. AND SOLD UNDER THE "CM TRUCK BEDS" LABEL ARE SUBJECT TO SPECIFIC AND LIMITED WARRANTIES AS FOLLOWS:

Contract Manufacturer, L.L.C. warrants that each CM truck body, bulkhead, and stake rack bought and used by the original purchaser under normal use in the Continental United States will be free from defects in materials and workmanship for three (3) years or (36,000) miles following the original purchase, subject to the requirements, exclusions and limitations stated below which will be strictly applied. For warranty registration instructions please visit us at: www.cmtruckbeds.com

TO VALIDATE YOUR WARRANTY

In order to validate this Limited Warranty, the AUTHORIZED CM TRUCK BED UPFITTER must complete the warranty card or visit the online registration page at <https://warranty.cmtruckbeds.com>

IF WARRANTY REGISTRATION IS NOT COMPLETED, ALL EXPRESS WARRANTIES CONTAINED IN THIS LIMITED WARRANTY SHALL BE NULL AND VOID.

THREE (3) YEAR (36,000) MILE LIMITED WARRANTY

Subject to the requirements, exclusions and limitations stated below, the structure of the CM truck body is warranted to the original retail purchaser against defects in materials and workmanship by Contract Manufacturer, L.L.C., arising from normal use for three (3) years or (36,000) miles from the date of purchase.

ONE (1) YEAR LIMITED WARRANTY

Contract Manufacturer, L.L.C. warrants its finishes to be consistent with industry standards for one (1) year after the date of original retail purchase, with the exceptions of "normal use" limitations set forth below and of deterioration due to use, physical damage, or exposure, such as chipping, scratching, fading, cracks in caulk seams, road salt, tar, or pressure washing. Rust streaking originating from areas where it is virtually impossible to achieve total paint or powder coat coverage, i.e. behind rub rails or where two or more metals adjoin, are considered to be consistent with industry standards and not covered.

NORMAL USE, NO REPAIRS, ALTERATIONS, OR TRANSFERS

This Limited Warranty covers only defects in original components which arise from normal use and does not apply if the truck body is subject to negligence, accident, abuse, misuse, overload, corrosive materials, improper installation, lack of proper maintenance, has been repaired or altered without the prior written consent of Contract Manufacturer, L.L.C, or is transferred from the original chassis of installation. Normal wear items, including but not limited to lights and doors, will not be replaced due to wear.

TRANSPORTATION COST EXCLUDED

Transportation of any truck body to and/or from the dealer or any approved repair facility shall be the responsibility of the truck bed owner. Contract Manufacturer, L.L.C. shall not be liable for any such costs.

PRIOR WRITTEN CONSENT REQUIRED AND RETURN OF DEFECTIVE PARTS REQUIRED

No reimbursement will be made to any dealer or owner for repairs made without the prior written consent of Contract Manufacturer, L.L.C. Any defective part(s) must be sent by prepaid freight to Contract Manufacturer, L.L.C. in order to qualify for replacement or reimbursement under this Limited Warranty.

OTHER EXCLUSIONS

This Limited Warranty applies exclusively to the above described truck bodies, bulkheads, and stake racks manufactured by Contract Manufacturer, L.L.C. Any other products manufactured by Contract Manufacturer, L.L.C. are specifically excluded from this warranty. Contract Manufacturer, L.L.C. expressly disclaims and excludes any responsibility or liability for any materials or workmanship related to the installation of a truck bed onto a vehicle chassis by any other person or

company, including any incidental or consequential damages or contingent liabilities arising there from. Authorized repairs do not extend the term of this Limited Warranty.

LIMITATIONS

THE SOLE RESPONSIBILITY OF CONTRACT MANUFACTURER, L.L.C. UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR AND REPLACE PARTS AT THE CM TRUCK BED FACTORY; HOWEVER, UNDER UNUSUAL CIRCUMSTANCES WITH PRIOR WRITTEN APPROVAL AND AT CONTRACT MANUFACTURER, L.L.C.'S DISCRETION, A REASONABLE ALLOWANCE MAY BE MADE FOR REPAIR OFF SITE BY AN AUTHORIZED CM TRUCK BEDS' DISTRIBUTOR OR BY ANOTHER CM APPROVED PERSON(S) OR COMPANY. ALL OTHER OBLIGATIONS OR LIABILITIES, INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES OR CONTINGENT LIABILITIES ARISING OUT OF THE FAILURE OF ANY PARTS TO OPERATE PROPERLY ARE HEREBY EXCLUDED, INCLUDING BUT NOT LIMITED TO ANY DAMAGES RESULTING FROM LOSS OF USE, INCONVENIENCE, LOSS OF TIME, COMMERCIAL LOSS OR ANY OTHER TYPE OF DAMAGES, GENERAL OR SPECIFIC, FORESEEN OR UNFORESEEN, UNLESS APPLICABLE STATE LAW PROVIDES OTHERWISE.

DISCLAIMERS

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND REPRESENTATIONS. CONTRACT MANUFACTURER, L.L.C. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO CM TRUCK BEDS WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER. NO ONE, INCLUDING AN AUTHORIZED CM TRUCK BEDS DEALER, IS AUTHORIZED TO MAKE FURTHER OR ADDITIONAL WARRANTIES ON BEHALF OF CONTRACT MANUFACTURER, L.L.C. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR INTENDED USE ARE LIMITED TO WARRANTY PERIODS STATED ABOVE, UNLESS ANY APPLICABLE STATE LAW PROVIDES OTHERWISE.



RD-AL Bed



SK-AL Bed



PL-AL Bed



ER-AL Bed



SS Bed



RD Bed



SK Bed



ER Bed



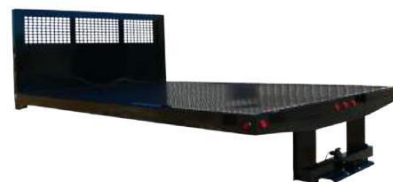
TM Bed



WD Bed



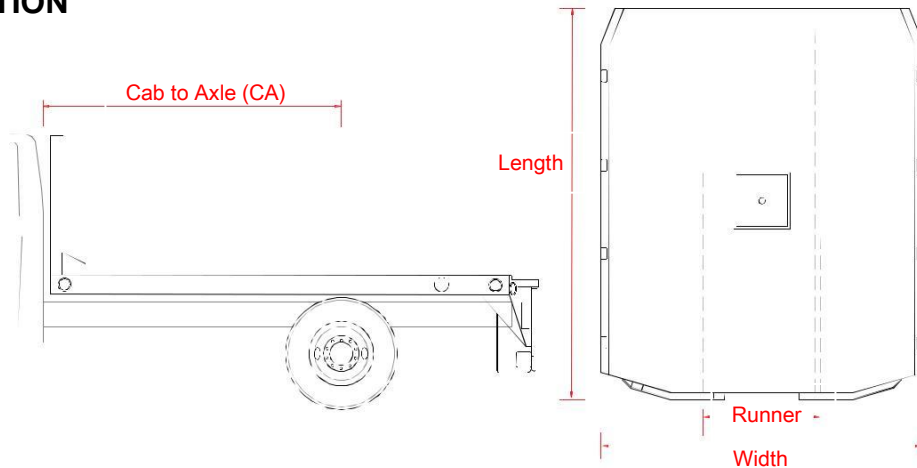
GP Bed



PL Bed

SS Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

* **NOTE:** Attachment components are not supplied. Please use adequate material to fasten the frame and bed together. For any questions concerning materials, please contact the manufacturer.

* **CAUTION:** Observe safety precautions when using a welder on your vehicle. These are only recommendations and installation design is the responsibility of the installer. Follow vehicle manufacturer specifications when attaching plates to the truck frame.

FUEL FILLER ASSEMBLY INSTALLATION

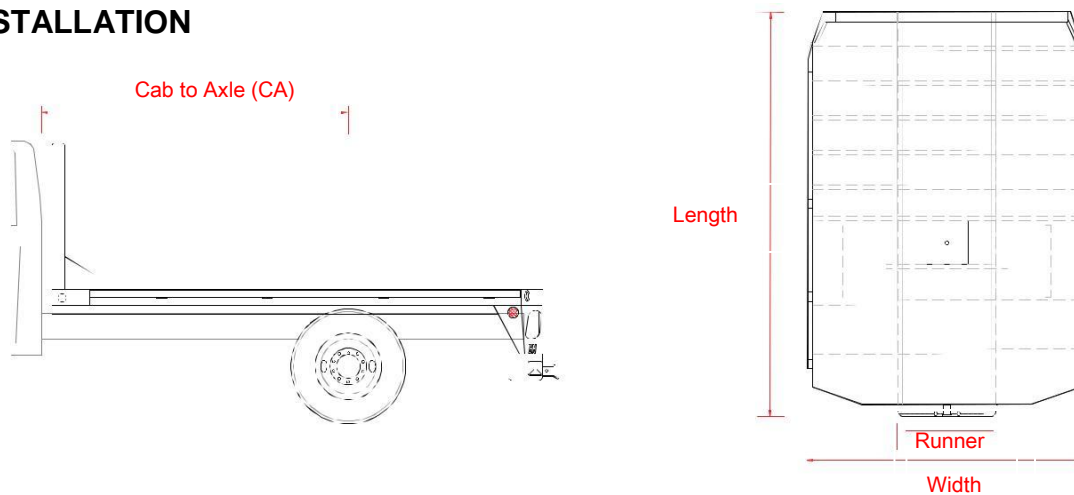
* **WARNING:** Installation requires cutting and grinding. Keep all ignition sources away when working with fuel tank filler pipe, or serious injury or death can occur.

* **CAUTION:** Fuel tank filler pipe must be installed according to vehicle requirements. Please read Owner's Manual. Follow fuel tank pipe manufacturer's instruction or serious injury can occur.

For Wiring Diagram See Appendix A

RD Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 1/2". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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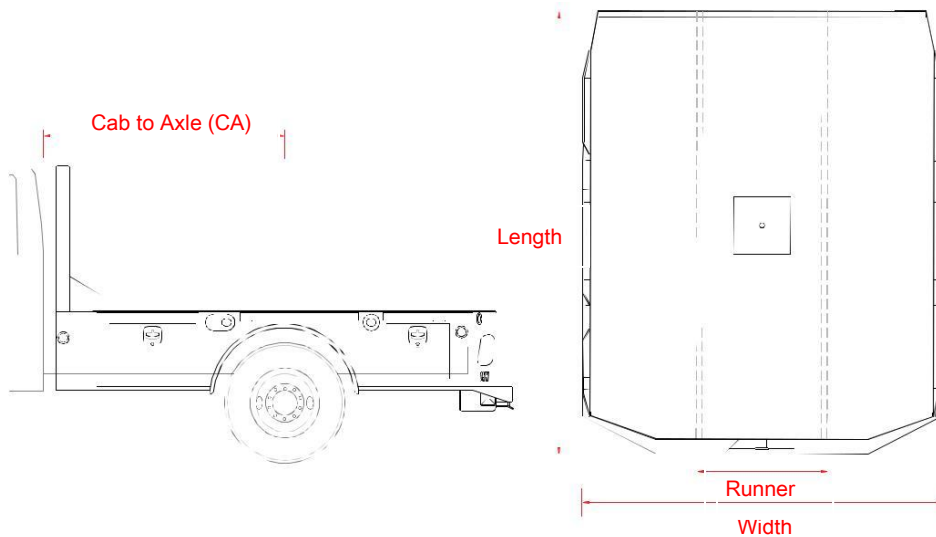
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For Wiring Diagram See Appendix

SK Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

* **NOTE:** Attachment components are not supplied. Please use adequate material to fasten the frame and bed together. For any questions concerning materials, please contact the manufacturer.

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FUEL FILLER ASSEMBLY INSTALLATION

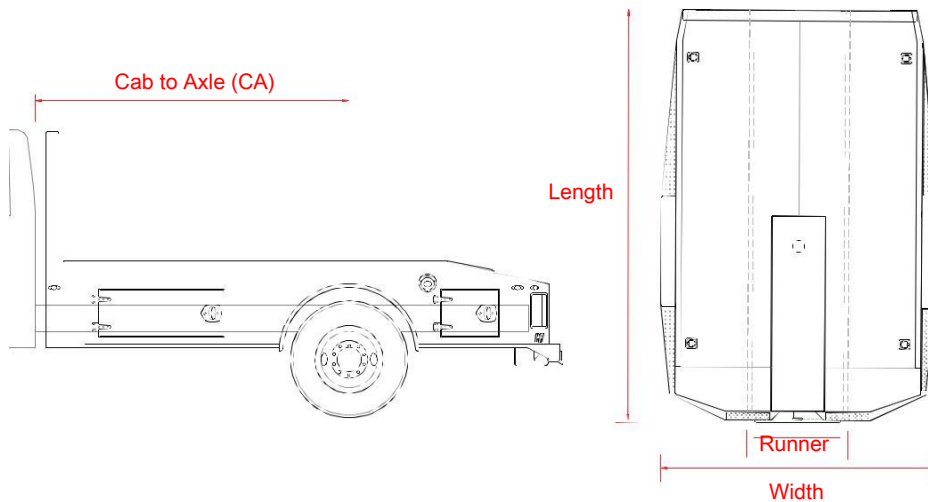
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* **CAUTION:** Fuel tank filler pipe must be installed according to vehicle requirements. Please read Owner's Manual. Follow fuel tank pipe manufacturer's instruction or serious injury can occur.

For Wiring Diagram See Appendix A

ER Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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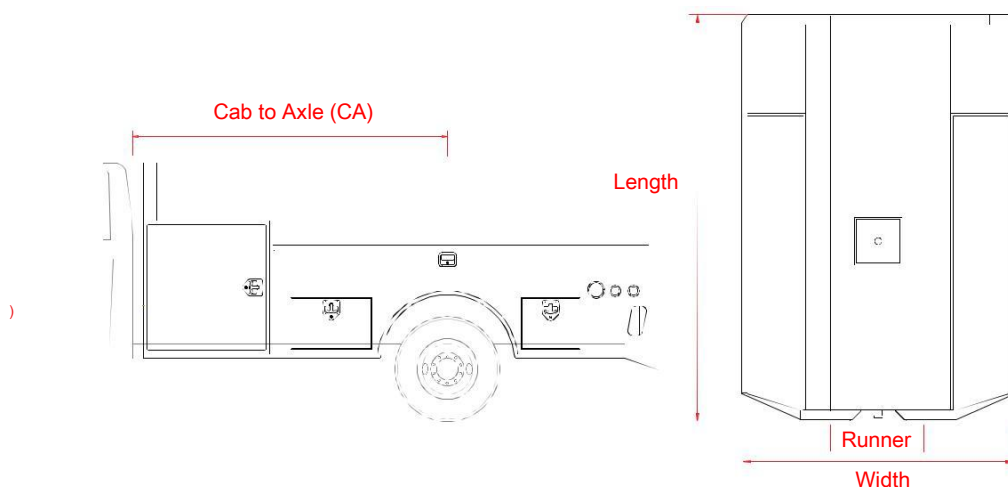
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For Wiring Diagram See Appendix A

TM Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 1/2". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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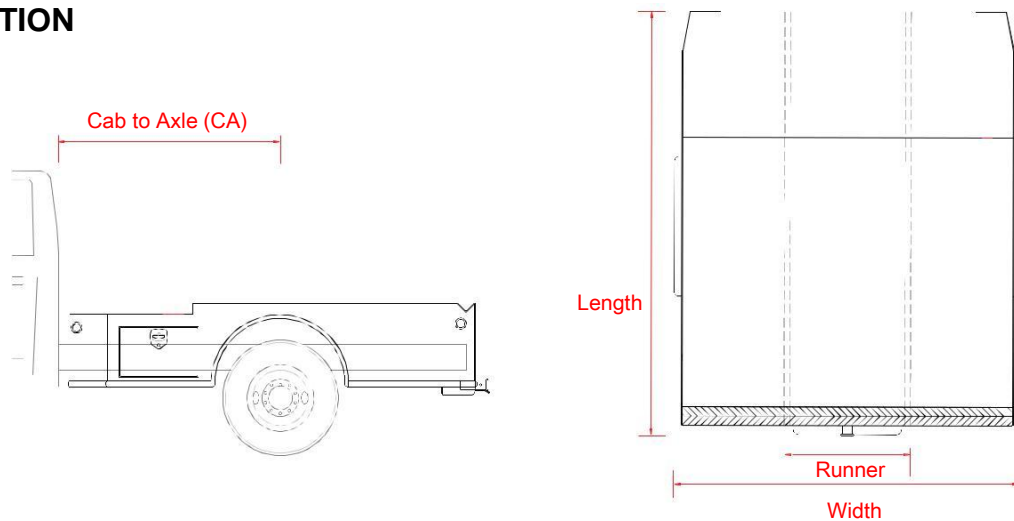
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For Wiring Diagram See Appendix A

WD Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

* **NOTE:** Attachment components are not supplied. Please use adequate material to fasten the frame and bed together. For any questions concerning materials, please contact the manufacturer.

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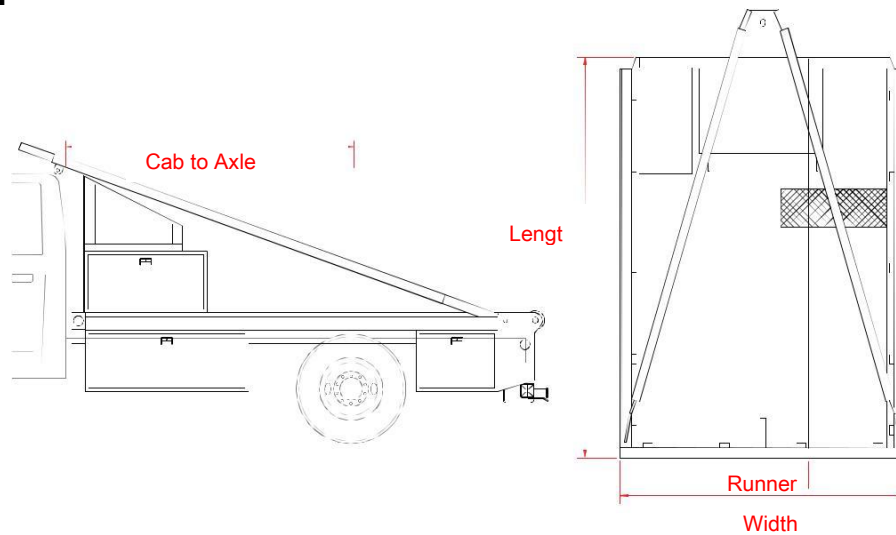
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For Wiring Diagram See Appendix A

GP Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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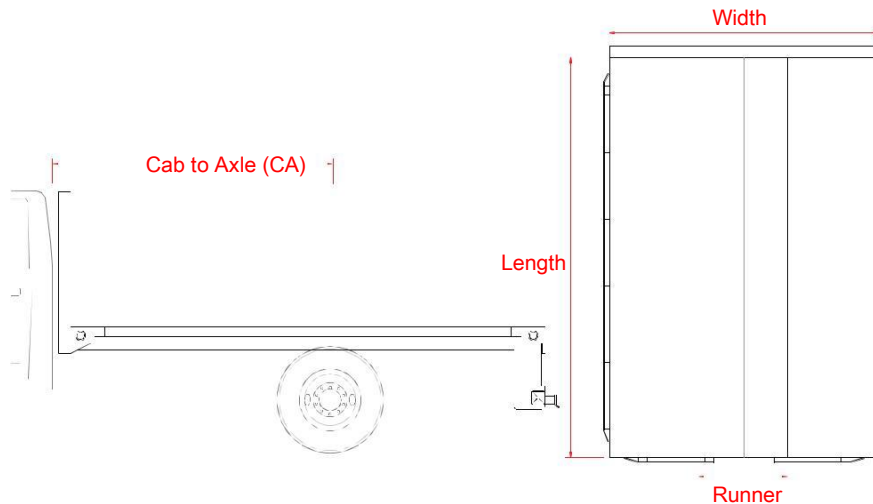
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For Wiring Diagram See Appendix A

PL Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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FUEL FILLER ASSEMBLY INSTALLATION

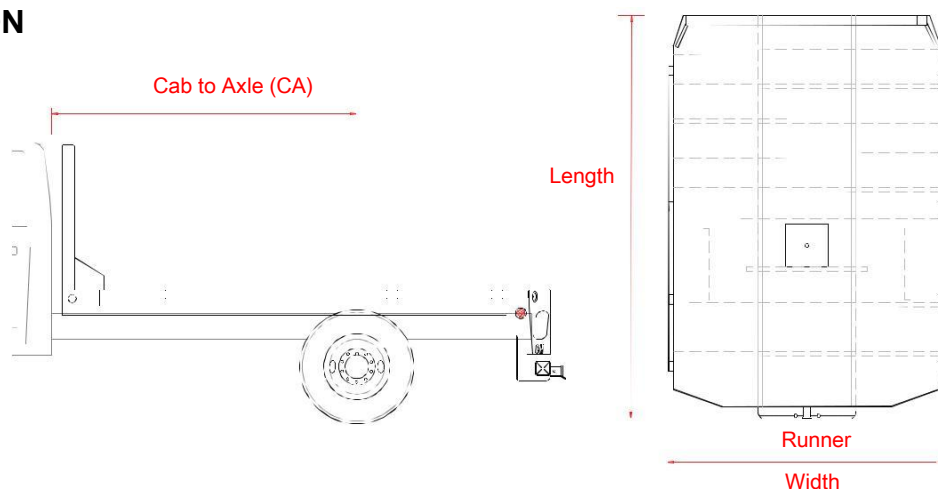
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For Wiring Diagram See Appendix A

RD-AL Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 1/2". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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FUEL FILLER ASSEMBLY INSTALLATION

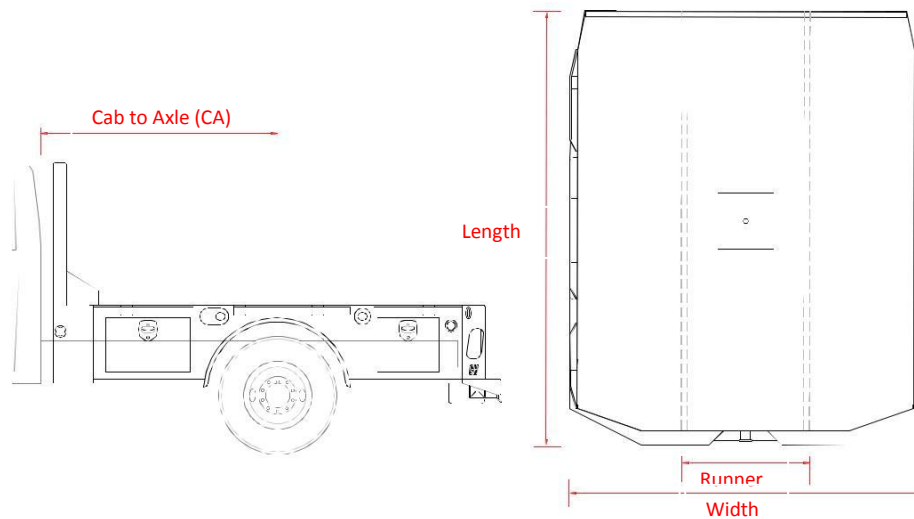
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For Wiring Diagram See Appendix A

SK-AL Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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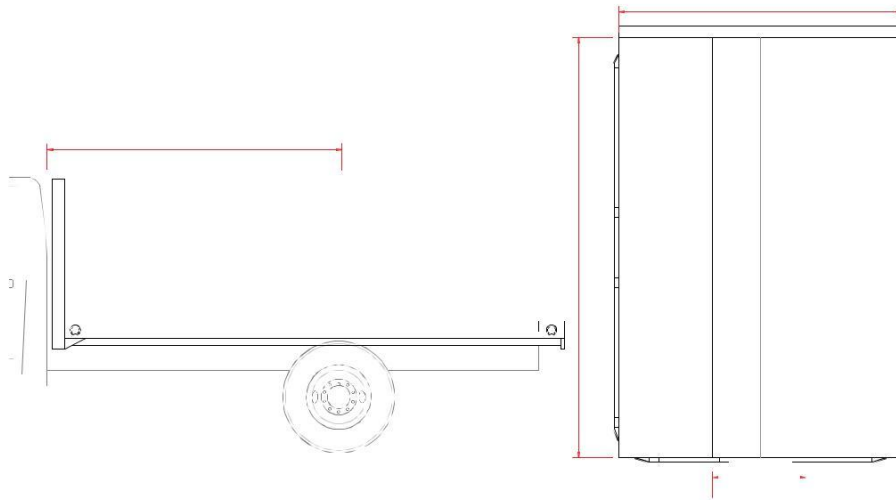
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For Wiring Diagram See Appendix A

PL-AL Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all lights on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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FUEL FILLER ASSEMBLY INSTALLATION

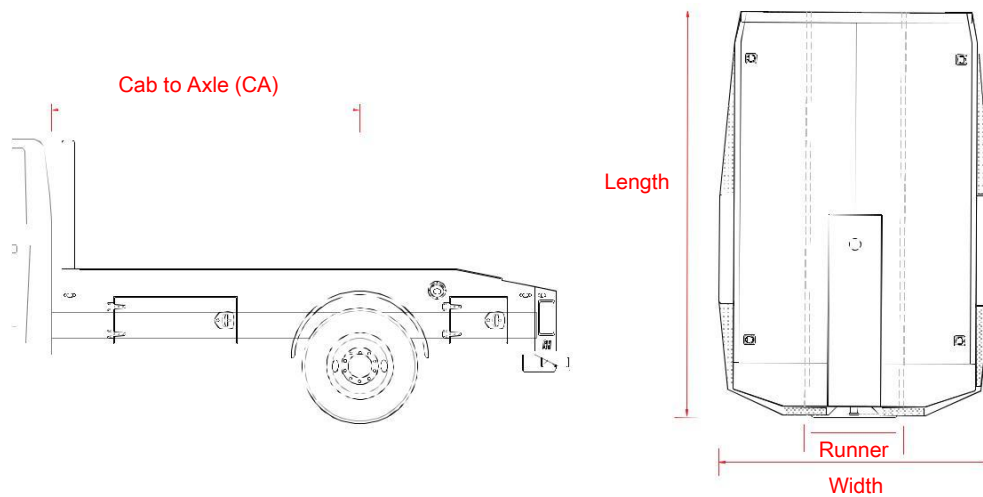
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For Wiring Diagram See Appendix A

ER-AL Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

Before starting installation check all light on truck to ensure proper operation and disconnect battery before performing installation. Measure frame on truck and runners on bed to make sure you have the right bed for the application. Position the bed so that the headache rack does not stick up over the cab of the truck more than 1 ½". There should be 2" of space between the cab and the headache rack on the bed. Attach fastener on each side of the front, middle, and rear; bolt to the frame, and then either bolt the fastener to your bed runners or weld them up solid. *

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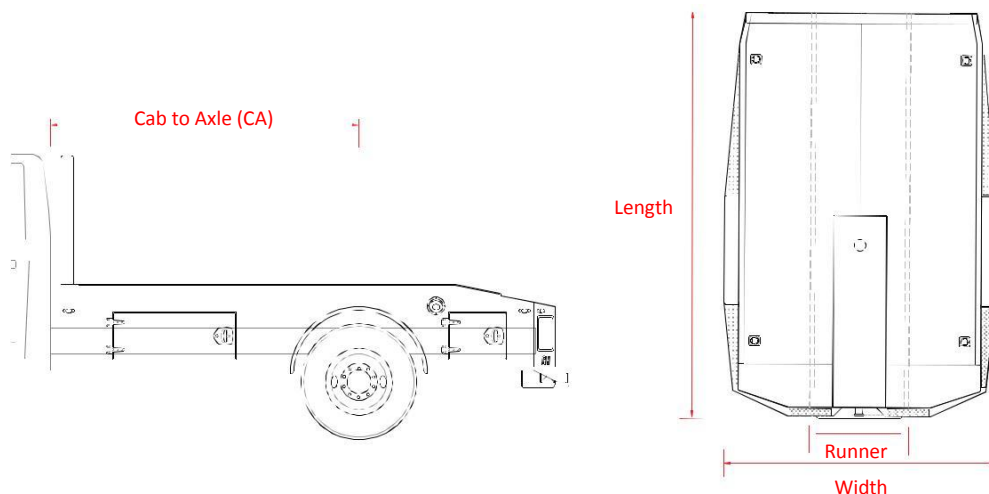
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For Wiring Diagram See Appendix A

ER-AL Bed

BED INSTALLATION



To determine which size CM Truck Bed you need, use the following guide: Length x Width x CA (cab to axle) x Runner

Explanation

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For Wiring Diagram See Appendix A

ALTERATIONS OR MODIFICATIONS TO YOUR CM TRUCK BED

If you plan to make any alterations or modifications to your CM truck bed, check with CM Truck Beds. Sometimes what appears to be a minor alteration or modification could compromise the integrity of the truck bed.

Some manipulation of faulty exhaust systems may be required per manufacturing specifications.

Alterations to the wiring systems on CM truck beds should only be performed by a qualified professional technician.

For helpful information on locating a technician, contact your CM Truck Beds dealer.

Go online to OEM Body Builder website for specific specs of your vehicle.

GENERAL MAINTENANCE

All Models

All hinges, latches, etc. should be periodically lubricated for maximum efficiency and longevity.

TM Model

Gas shocks should be checked periodically for wear. Replace if necessary.

POWDER COATING

About Powder Coating

Powder coating is an advanced method of applying a decorative and protective finish to a wide range of materials and products. The powder used for the process is a mixture of finely ground particles of pigment and resin, which is sprayed onto a surface to be coated. The charged powder particles adhere to the electrically grounded surfaces until heated and fused into a smooth coating in a curing oven. The result is a uniform, durable, high-quality, and attractive finish.

Powder coating gives one of the most longest lasting and most color-durable quality finishes available. Additionally, powder coated surfaces are more resistant to chipping, scratching, fading, and wearing than other finishes.

Please note: Any beds which are not black in color may be painted with wet paint and will not be powder coated.

ALUMINUM SURFACES

Cleaning any aluminum surface is recommended to be performed by a professional cleaning service. Acid, harsh detergent, and chemical washes are not recommended.

* **CAUTION:** Certain chemicals can burn or stain aluminum surfaces. Always consult professional cleaning services about the proper care of your aluminum product.

BUMPER

Bumper Hitch rating for trailer up to and including Class 4 with maximum Gross Vehicle Weight Rating (GVWR) of **6577 KG** (14,500 lbs) GVWR.

TURNING RADIUS

After installing your new CM Truck Bed, check distance from your ball to your headache rack. If you intend on pulling a gooseneck trailer, be sure to check your turning radius and make sure you have enough clearance for the nose of your trailer. CM is not responsible for damage to truck, truck bed, or trailer due to a turning radius issue.

GOOSENECK BALL

Gooseneck Hitch rating for trailers are rated up to (11,793 KG).

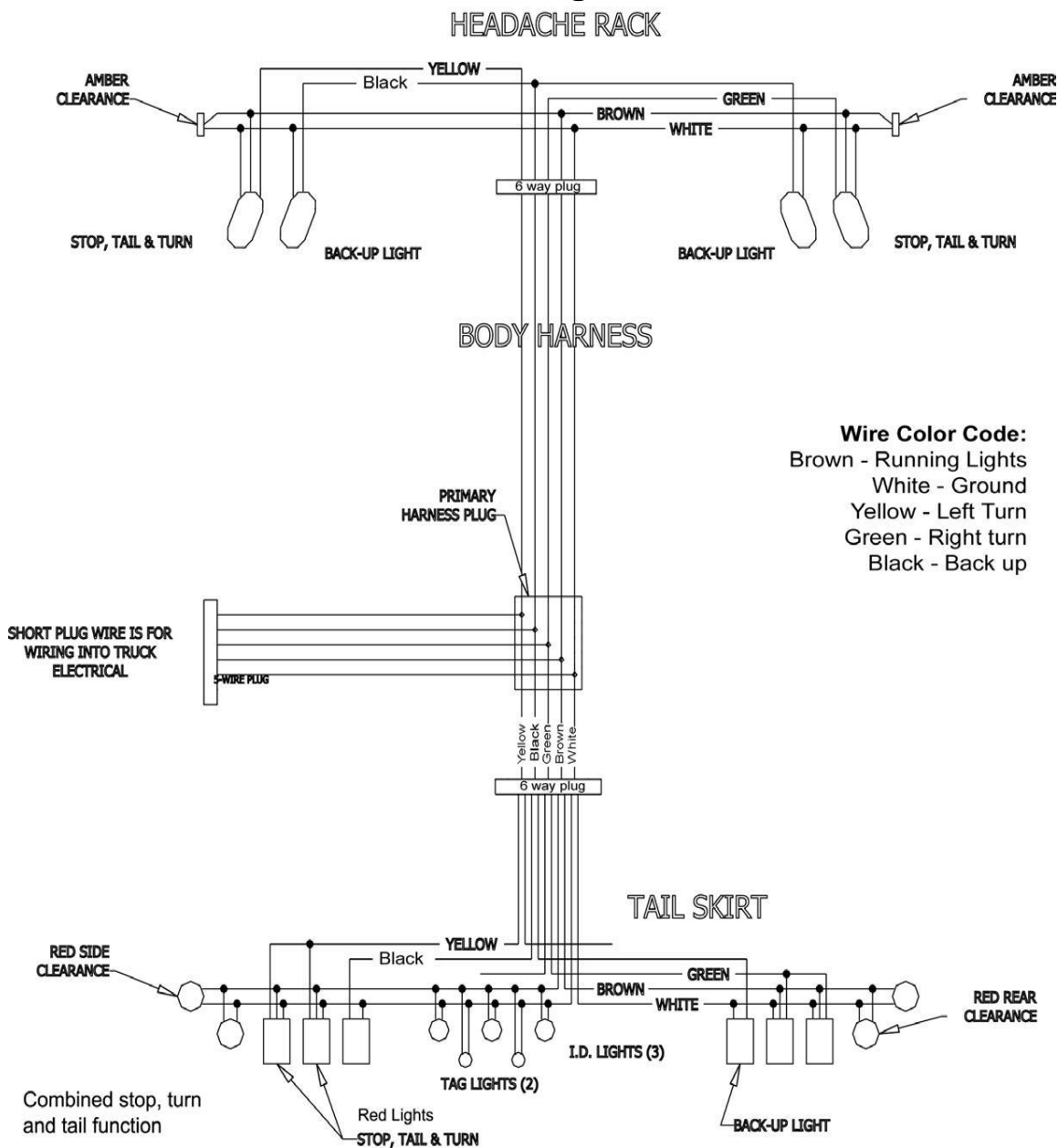
LIGHTING

All CM Truck Beds are equipped with sealed LED lighting replacement lights and can be purchased by contacting Tex Trail Trailer Parts at 877-795-3138.

TOOL BOXES

It is recommended that you maintain the seals of the toolboxes on your CM Truck Bed by checking the D bulb weather-stripping on the box every three months. Ensure that the weather-stripping is affixed to the inner rim of the box and that it is not cracked. Cracking can cause leaking and damage to contents in the bed. All CM Toolboxes are equipped with slam latches or compression T handle latches. Additional or replacement tool boxes can be purchased through Tex Trail by calling 580-795-3138.

Appendix A: Wiring Diagram Ford: 2000 Or Older, 2007 - Present Chevy: 2002 Or Older Dodge 2007 To Present



Explanation

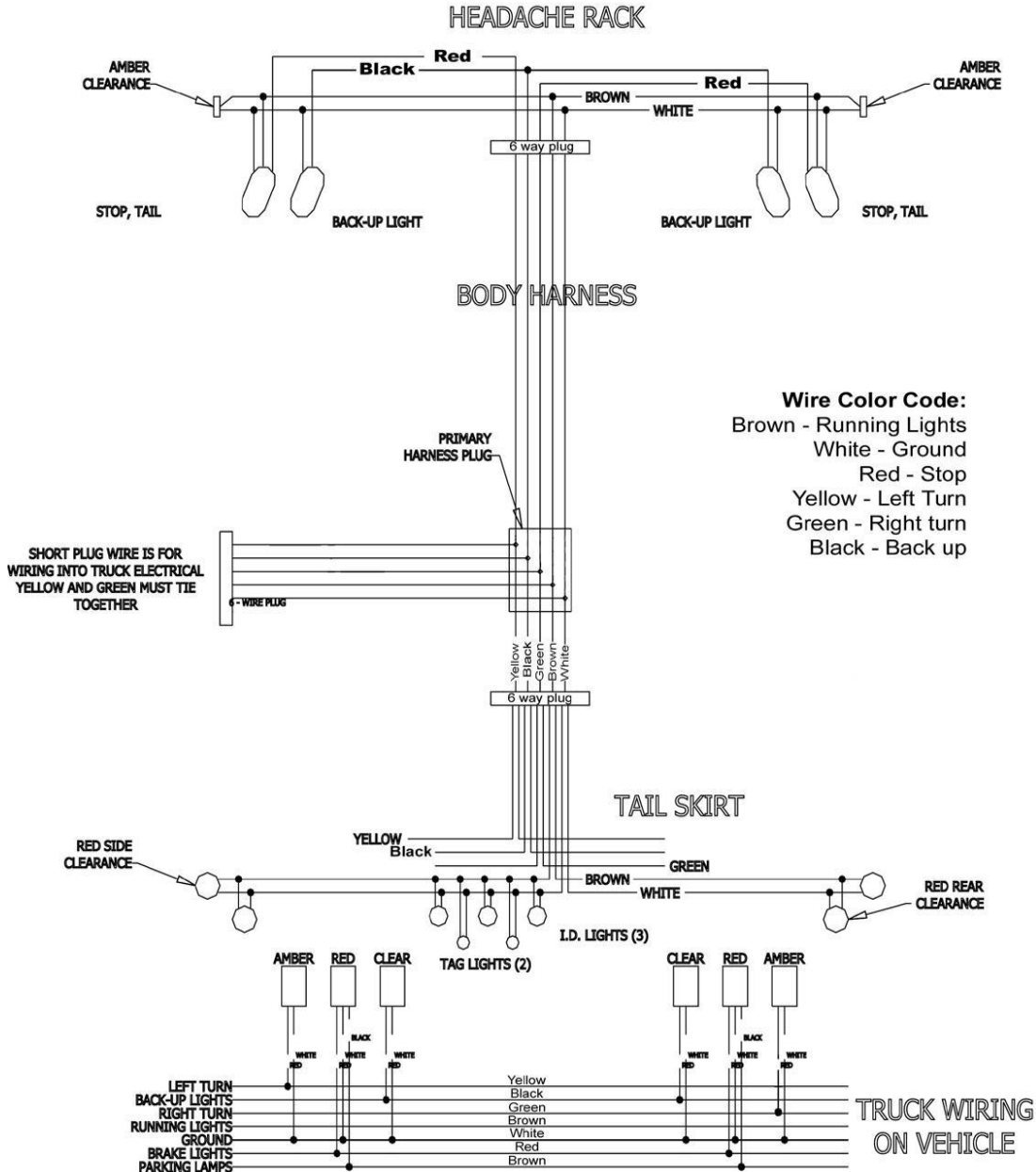
* **NOTE:** Observe all vehicle manufacturer recommendations when working with or connecting to vehicle electrical systems. These wiring instructions were created for trucks using separate brake and turn signal lights. Keep all lights turned off when making connections.

The wiring is installed starting on the right side of the headache rack, running through it and picking up the left side. It then travels back to the center of the bed where there is a 6 pin connection. The center harness is connected here and runs back to the tail skirt where there is another 6 pin connection for the rear skirt harness. Before the rear connection is a 6 wire pig tail to tie directly into the truck functions.

* **NOTE:** Wires that are not used from harness need to have a heat shrink butt connector put on the end so they don't short out against the steel of the truck bed.

Appendix B: Wiring Diagram Dodge: 2003 to 2006

Chevy: 2001 - 2006



Explanation

* **NOTE:** Observe all vehicle manufacturer recommendations when working with or connecting to vehicle electrical systems. These wiring instructions were created for trucks using separate brake and turn signal lights. Keep all lights turned off when making connections.

The wiring is installed starting on the right side of the headache rack, running through it and picking up the left side. It then travels back to the center of the bed where there is a 6 pin connection. The center harness is connected here and runs back to the tail skirt where there is another 6 pin connection for the rear skirt harness. Before the rear connection is a 6 wire pig tail to tie directly into the truck functions.

* **NOTE:** Wires that are not used from harness need to have a heat shrink butt connector put on the end so they don't short out against the steel of the truck bed.

-*-* CM's Bed Sizing Guide By Truck Model *-*-

What size bed will fit on your truck?

Please use chart below to determine but *always* double check by measuring!

GM (Chevy/GMC) Trucks:

2001 – Present:

Dually: 8'6" L x 97" W x 56" CA x 42" Rail

Single Wheel Long Wheel Base: 8'6" L x 84" W x 56" CA x 42" Rail

Single Wheel Short Wheel Base: 84" L x 84" W x 42" CA x 42" Rail

Cab & Chassis: 9'4" L x 90" or 92" W x 60" CA x 34" Rail

4500 & 5500: 94" W with 60" Headache rack

Prior to 2000: Measurements will be required

Ram (Dodge) Trucks:

2007: Cab & Chassis: 9'4" L x 94" W x 60" CA x 34" Rail (requires SD headache rack)

2003 – Present:

Mega Cab Dually: 84" L x 97" W x 38" CA x 42" Rail

Dually: 8'6" L x 97" W x 58" CA x 42" Rail

Single Wheel Long Wheel Base: 8'6" L x 84" W x 58" CA x 42" Rail

Single Wheel Short Wheel Base: 84" L x 84" W x 38" CA x 42" Rail

2002 – Earlier: 56" CA and 38" Rail

Ford Trucks:

1998-2016:

Dually: 8'6" L x 97" W x 56" CA x 38" Rail

Single Wheel Long Wheel Base: 8'6" L x 84" W x 56" CA x 38" Rail

Single Wheel Short Wheel Base: 84" L x 84" W x 40" CA x 38" Rail

Cab & Chassis: 9'4" L x 92" W x 60" CA x 34" Rail

F350 Cab & Chassis: 92" W

F350 Dually: 97" W

F450 & F550: 94" & 97" W with SD headache rack

2017:

Dually: 8'6" L x 97" W x 56" CA x 42" Rail with SD headache rack

Single Wheel Long Wheel Base: 8'6" L x 84" W x 58" CA x 42" Rail with SD headache rack

Single Wheel Short Wheel Base: 84" L x 84" W x 40" CA x 42" Rail with SD headache rack

Cab & Chassis: 9'4" L x 92" W x 60" CA x 34" Rail with SD headache rack

F350 Cab & Chassis: 92" W with SD headache rack

F350 Dually: 97" W x 58" CA x 42" Rail with SD headache rack

F450 & F550: 94" & 97" W with SD headache rack



UI Bulletin #81b

Subject: Service Body Rear Lighting Options
(Including LEDs)

Models: Chevrolet Silverado

Affected: GMC Sierra

Model Years: 2011 and beyond

Date: April 13, 2011

Revision: June 19, 2014

Date:

ADVISORY:

Condition/Concern:

The information contained in this bulletin applies to both Light and Heavy duty series trucks and is based on vehicle model/year, that are to be completed or modified by a second stage manufacturer (upfitter) and may need to have the Body Control Module (BCM) rear turn signal bulb outage detection capability changed in order to eliminate/avoid the "Fast Flash" condition.

Repair/Recommendation:

For the 2007-2014 -1500 LD Series trucks are only available with standard 2 bulb outage detection, these vehicles cannot be reprogrammed to support any other type of bulb outage detection.

For the 2007-2014 - 2500/3500 HD series trucks with the ZW9 (box delete) option are manufactured with the rear bulb outage detection disabled. This allow for the service body installer to add any type of rear lighting configuration.

For the 2008-2014 - 2500/3500 HD series trucks with the ZW9 (box delete) option, an orderable option (9U5) for single bulb outage was available. This option can be added to a ZW9 box delete vehicle post manufacturing by contacting TCSC (Techline Customer Support Center) and requesting a new Vehicle Configuration Index (VCI), followed by reprogramming the Body Control Module (BCM).

For all 2015 LD and HD series trucks with ZW9 (box delete) rear bulb outage detection is disabled. The 9U5 single bulb outage option is no longer available on any 2015 and newer models.

Note: when performing a box removal, it is required to reprogram the BCM as a ZW9 box deleted vehicle configuration in order to disable rear bulb outage detection.

General Motors Upfitter Integration

<http://www.gmupfitter.com> • 1-800-875-4742 (Upfitter Hotline)

Bulletin #81b

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June 19, 2014

Disclaimers: GM Upfitter Integration Technical Bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service and/or modification of a vehicle. These properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. Contact GM Upfitter Integration for information on whether the information is applicable to your vehicle.

Q-265



SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

E-Mail via Website: www.fleet.ford.com/truckbbas (click "Contact Us")

Toll-free: (877) 840-4338

QVM Bulletin: Q-265

Date: 20 February 2017

2017 F-Series Pickup only – Box Removal with BLIS

- Models Affected:** 2017 F-Super Duty – F250/F350 Pickups used for box removal
- Issue:** Some 2017 F-Super Duty vehicles equipped with BLIS that have had the pickup box removed for upfitter modification may exhibit a BLIS warning message in the message center.
- Solution:** To correct this concern, use Integrated Diagnostic System (IDS) service tool version 104.01 or later to configure the BLIS system. These settings can be found under toolbox > module programming > programmable parameters > warning lamps and chimes and must be adjusted in multiple modules.

BLIS capability is disabled

BLIS option is not offered on Pickup box delete

Not recommended for box removal; sensors are in the factory tail lamps being removed

Reference SSM 46387 for dealer service procedure

If you have any questions, please contact the Ford Truck Body Builders Advisory Service as shown in the header of this bulletin.

Modern Ford vehicle electronic controls provide Ford customers with superior reliability and diagnostic capability when vehicle modifications are performed in line with the recommendations detailed here. Many traditional modification methods may no longer be compatible with these modern electronic modules.

Although there are many points in the truck electrical system to connect additional circuits, certain connection points are recommended for reliability and convenience. This section defines the recommended connection points for each Ford Truck model and the maximum electrical loads allowable.

CAUTION: Improper electrical tie-ins may affect vehicle operation (i.e., engine, transmission, lighting).

After all electrical or vehicle modifications, perform the on-board diagnostics procedures as described in the powertrain control module diagnosis manual to clear all diagnostic trouble codes (DTCs). In addition, perform self-test to the BCM and test all lighting outputs. Road test vehicle and return the on-board diagnostics to verify that no DTCs are present. If DTCs are generated, perform the appropriate diagnostic procedures and repairs. Vehicle operation (engine, transmission, lighting) may be affected if DTCs are not serviced. Alternative connections or wiring practices are not recommended as these modifications will result in other circuits becoming non-functional. Disconnect the battery negative (ground) cable and remove it from the battery carrier prior to any vehicle modification. Upon completion of body or equipment installation, all wiring should be checked for proper routing, etc. to preclude electrical shorts upon re-installation of the battery negative cable. Do not splice into the Powertrain System (PCM-V). Connecting to any component or wires to this system may adversely affect engine/transmission operation. Likewise, do not splice into any lighting circuits as this may permanently disable the lighting circuits within the Body Control Module (BCM). Proper modification practices are fully described in this layout book.

LIGHTS CONTROLLED BY HEADLAMP SWITCH

- Super Duty F-Series

The headlamp switch used on the Super Duty F-Series vehicles is a low current switch designed to signal the Body Control Module (BCM) to activate all exterior lighting. The left-hand and right-hand low beam lamps are then fused individually using 10A fuses located in

the BCM fuse box. The high beam lamps are fused using a separate 15A fuse while the interior lamps are fused using 10A fuses located in the BCM fuse box. A connection to any circuit in the system controlled by the headlamp switch must be done using an auxiliary relay. Any connection must be performed on the lighting output of the BCM. Additional loads connected to the headlamp switch will damage the headlamp switch. A park lamp relay circuit CLS30 for SUE additions is provided for convenience as standard equipment on chassis cabs, optional on pickups. Do not connect to other OEM wires.

- E-Series

Rear Lights — Splice into circuit CLS 30 VTWMT in crossover harness at rear of vehicle.

Front Lights — Splice into circuit CLS 30 VTWMT in engine compartment T24/581 wire assembly along right or left fender apron.

LIGHTS CONTROLLED BY STOP LAMP SWITCH AND TURN INDICATOR SWITCH

NOTE: Splicing into the stop lamp switch can damage the Body Control Module (BCM). Splicing into the stop lamp switch on vehicles with Electronically Controlled Transmissions can interfere with the proper functioning of PCM, speed control, and anti-lock brake electronic modules. This can:

- Affect EFI engine idle speed quality.
- Prevent the Powertrain Control Module (PCM) controlled torque converter clutch from applying at throttle openings less than half-throttle.
- Deactivate anti-lock brake system operation.

Prevent the speed control from disengaging upon braking.

Do not delete or deactivate the Center High Mount Stop Lamp (CHMSL) unless it will be blocked by second unit body.

The stop lamp switch that is in use on Ford trucks is a mechanical switch operated by brake pedal. The BCM supports adding loads to the brake pedal switch through fuse 31 at pins C6-19 and C2-4. Tapping into other BCM inputs, such as Park Brake and Door Ajar, can cause BCM failure. Under no circumstances are additional brake pedal loads to be added by directly splicing into vehicle wiring.

ELECTRICAL WIRING GENERAL PRACTICES

ADDITION OF LIGHTS OR ELECTRICAL DEVICES (Cont'd)

F-150, SUPER DUTY F-SERIES AND E-SERIES MODELS

Ford trucks are released with a mechanical stop lamp switch mounted on the brake pedal arm for E-Series and mounted on the pedal pin and master cylinder push rod for F-150 and Super Duty F-Series. If only stop lamp function is desired for the added lights, connect to circuit YE-GN CLS43 at the blunt cut customer access wire located at the rear of the vehicle near trailer tow connector C4099.

The turn signal switch is designed to use a low current to signal the BCM to activate turn signal and stop lamps. The switch is not designed to directly power any lamps or other electrical devices.

If both turn signal and stop lamp function are desired for the added lights, splice into Super Duty F-Series trailer tow wiring provided with the vehicle. These circuits are provided as standard equipment and are located at the rear of the vehicle. Do not splice into turn signal circuits at the BCM or turn circuits at the multi-function switch. Splicing in those areas will damage the switch or cause the BCM to malfunction. Use the trailer tow circuits and trailer tow relays to power added turn/stop lights. Circuits are accessible at the rear of the vehicle. LT/Stop-VE, RT/Stop-GN.

Reverse/backup lights must be tied-in using trailer tow relays and circuits in same manner as turn/stop lights.

ADDED LIGHTS OR ACCESSORIES CONTROLLED BY ADDED SWITCHES

This section describes the connection points for added electrical accessories when these accessories are to be controlled by added switches not a part of the Ford-released vehicle. The added switches and wiring must have sufficient electrical capacity for the accessory load and must be tied to the battery using separate fuses and a circuit protection device. Additional loads on Ford provided fuses may cause permanent BCM damage and lighting failure. Also, added current draw must not cause total loads to exceed capabilities of the base vehicle wiring.

WIPER DELAY MODULE - E-SERIES, F-43 & F-35 STRIPPED CHASSIS

The Wiper Delay Module is not internally protected for a continuous high current load greater than 9 amps and must be protected either internal to the wiper motor or via inline protection such as a properly sized circuit breaker. The existing 30 amp fuse in the fuse panel is sized for the maximum allowable in-rush current and does not provide appropriate protection to the Wiper Delay Module.

MULTIFUNCTION INDICATOR LIGHT (MIL)

The "Multifunction Indicator Light" is used to indicate malfunctions of the engine's emission control system and certain powertrain emissions-related components. For all incomplete vehicles, except basic (stripped) chassis (which is not equipped with an instrument panel), the MIL is Ford-installed and operational in the instrument panel. The E-Series Basic (Stripped) chassis vehicle has the MIL wiring light installed in the instrument cluster, which is stripped in the dunnage box.

If an alternate instrument cluster is utilized, the final stage manufacturer must install an operational MIL in the instrument cluster. The MIL must be located on the driver's side instrument panel, be of sufficient illumination and location to be readily visible under all lighting conditions and shall be amber in color when illuminated. The MIL, when illuminated, shall display the phrase "Check Engine" or "Service Engine Soon". The word "Powertrain" may be substituted for "Engine" in the previous phrases. Alternatively, the ESO engine symbol may be substituted for the word "Engine" or for the entire phrase. This is a requirement for emission certification.

Once the light has been completed by the final stage manufacturer, proper function can be determined by turning the key to the on position. The light should come on prior to engine cranking and go out when the engine starts.

RADIO FREQUENCY INTERFERENCE (RFI)

During modifications to the vehicle, manufacturers, service technicians, owners and users should take the necessary precautions to maintain the RFI integrity of components. Both the United States and Canada have RFI regulation in effect. For any completed vehicle, additional measures may be needed to adequately suppress RFI emissions. Affected components could include spark plugs, ignition wires, ignition coils, ground straps, ignition components shields, accessory drive belts, ignition coil suppressors, the Powertrain Control Module (PCM) and the Body Control Module (BCM). Guidance for installing two-way mobile radios can be found via the web at www.ford.com/trucks/docs/downloads/Mod_Radio_Guide.pdf.

Additional Electrical Information can be accessed via the web at: www.ford.com/trucks/bbs under the "Bulletin" tab.

NOTE: The final stage manufacturer is responsible for ensuring that the final vehicle configuration meets all applicable regulatory requirements.

(Cont'd next page)

2014 2500/3500 EXTERIOR LIGHTING MODIFICATIONS / LED'S

Modifying The Exterior Lighting**RAM TRUCKS**

Note 1: Use the existing vehicle wires to the rear lamps, the trailer tow circuits are only for a trailer.

Note 2: Individual vehicle wiring circuits to left (drivers side) and right (passenger side) lighting MUST be kept separate, as designed. Do NOT power both left and right side bulbs/LED's from only either the left or right circuits, unless designed as such by Chrysler. Attempting to power both the left and right side lighting from one circuit may result in excess current draw on that circuit resulting in a fault code and possible circuit disable. Also leaving either a left or right side circuit without a lighting load will result in a fault code because the Central Body Computer will see the unused circuit as "burned-out" or disconnected lighting.

Note 3: When replacing incandescent bulbs with high efficiency LED's, these LED's may exhibit a faint glow even without the vehicle lighting being activated. This is normal and a result of the electronics in the Central Body Computer.

Replacing rear incandescent bulbs with LED's**Stop / Turn Lamps**

For 2014 there are two different methods to eliminate fast flash and error codes when replacing rear stop/turn incandescent bulbs with LED's:

***Method (A) -**

Ground circuit (Ground this circuit before disconnecting the OEM incandescent bulbs)
L950 LG/WT located in the driver side fender inner, location H. The circuit is accessed by removing the PDC in front of the battery and reaching into the fender inner. The L950 circuit is only on vehicles with the auxiliary switch option (sales code LHL) or vehicles with the "Box-Off" option (sales code XBC). See "Upfitter Wiring Interface Instructions" section of "Upfitter Electrical Instructions".

Alternate method (B) -

Add power resistors to the rear light circuits. This is the same procedure that could be employed from previous model years. Wire a 9 or 10 ohm, 50 watt power resistor in parallel with each LED's +12V feed wire and to ground. The resistors must be capable of surviving exterior exposure on the vehicle with consideration for vibration and expected life cycle. As power resistors may get hot under normal operation it is suggested that they be placed in an area with adequate ventilation and heat dissipation. It is further suggested that they be located very near the LED's; this is to help with any future service related maintenance or repairs to the lighting circuits.

*If the OEM incandescent bulbs are disconnected before circuit L950 from Method (A) is grounded and fast flash/faults are indicated - simply reconnect the OEM incandescent bulbs, unground the circuit, turn the vehicle switch to the run position, and:

1. actuate the left turn signal and wait for the fast flash to cease
2. actuate the right turn signal and wait for the fast flash to cease
3. press the brake pedal and wait for the fast flash to cease
4. re-ground the L950 circuit, and remove the OEM incandescent bulbs/re-connect the LED's.

2014 2500/3500 EXTERIOR LIGHTING MODIFICATIONS / LED's

Back-Up Lamps

For 2014 there is one method to eliminate fast flash and error codes when replacing back-up incandescent bulbs with LED's :

Add power resistors to the rear light circuits. This is the same procedure that could be employed from previous model years. Wire a 9 or 10 ohm, 50 watt power resistor in parallel with each LED's +12V feed wire and to ground. The resistors must be capable of surviving exterior exposure on the vehicle with consideration for vibration and expected life cycle. As power resistors may get hot under normal operation it is suggested that they be placed in an area with adequate ventilation and heat dissipation. It is further suggested that they be located very near the LED's; this is to help with any future service related maintenance or repairs to the lighting circuits.

General Info

The Ram truck has been designed and developed using either standard incandescent lights or LED's. These lights are controlled by a computerized module called the "Central Body Controller" (CBC). This module controls the left front, right front, left rear and right rear lighting independently. The CBC utilizes "smart" technology that has the ability to monitor the current (amperage) on some of the lighting outputs. These monitored outputs include the headlamps, turn lamps, stop lamps and reverse lamps. The module is able to detect both electrical short and open circuit conditions. The module has a preset allowable current (amperage) operating range for each of these outputs. If while in normal operation the current detected falls outside this preset range, then a fault is set in the module. In the case of too high of current the circuit will be shut off. This fault condition will remain true until the current level falls back into the normal range. In the case of the turn lamp circuits, if the module detects too low of current then the module will assume an open circuit condition (burned out bulb) and the blinker will flash at a double flash rate.

This detection is in place to assist the customer in determining if there is an active short in the lighting circuit or a burned out bulb (open circuit).

You can also get into these fault conditions by adding additional lamps to the circuits or by changing the lamp specifications (i.e. changing the type of lamp used). This would include, but is not limited to, the use of LED's. By using them you run the risk of causing lighting faults or loss of lighting functionality.

The question then becomes, "can you use LED lighting on Ram trucks"? The answer is yes, but special care and procedures need to be followed to use LEDs successfully.

A)

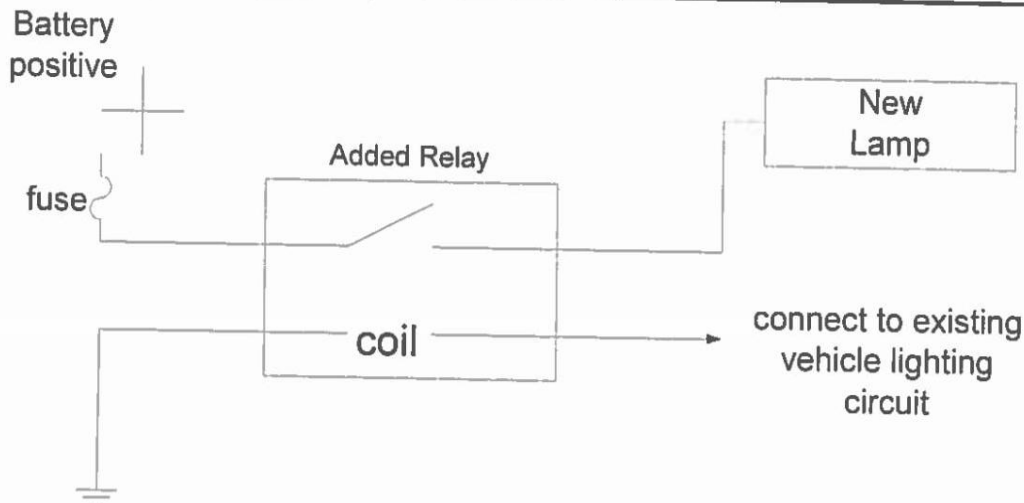
Use of LED lamps in conjunction with the original equipment incandescent lamps:

If you are keeping the original incandescent lamps (or the aftermarket equivalent) and you want to add additional LED lamps for use as stop, turn, reverse or park lamp function you can do so with no additional changes to the vehicle or its electrical system.

B)

Adding additional incandescent lamps to the original equipment incandescent lamps:

Customers sometimes desire to add additional lamps to the exterior lighting circuits. This is possible but requires adding a relay to control the additional lamps. By correctly wiring the relay into the lighting circuit you only add the additional coil resistance of the relay. This will maintain the correct operating current (amp) range of the circuits and no faults will be set. A relay will need to be added to each side of the vehicle (left and right). Below is a sample relay circuit which can be utilized to add additional lamps



When this type of circuit is used please understand that there is no way for the vehicle to perform any diagnostics on the added lamps.

As a general statement the CBC does not provide a large enough current range on the head, turn, stop or reverse lamp circuits to add any additional incandescent lamp loads. It is therefore strongly recommended that the above procedures are followed for modifying the exterior lighting.

Connecting Aftermarket Tail Lamps to Ram LED System

Aftermarket tail lamps can be added to a Ram truck with production LED tail lights. But, special provisions must be made to eliminate the "fast flash" and the lamp out indication in the cluster. This is done by adding a relay that will ground the diagnostics circuit when the turn signal bulb/LED array is on.

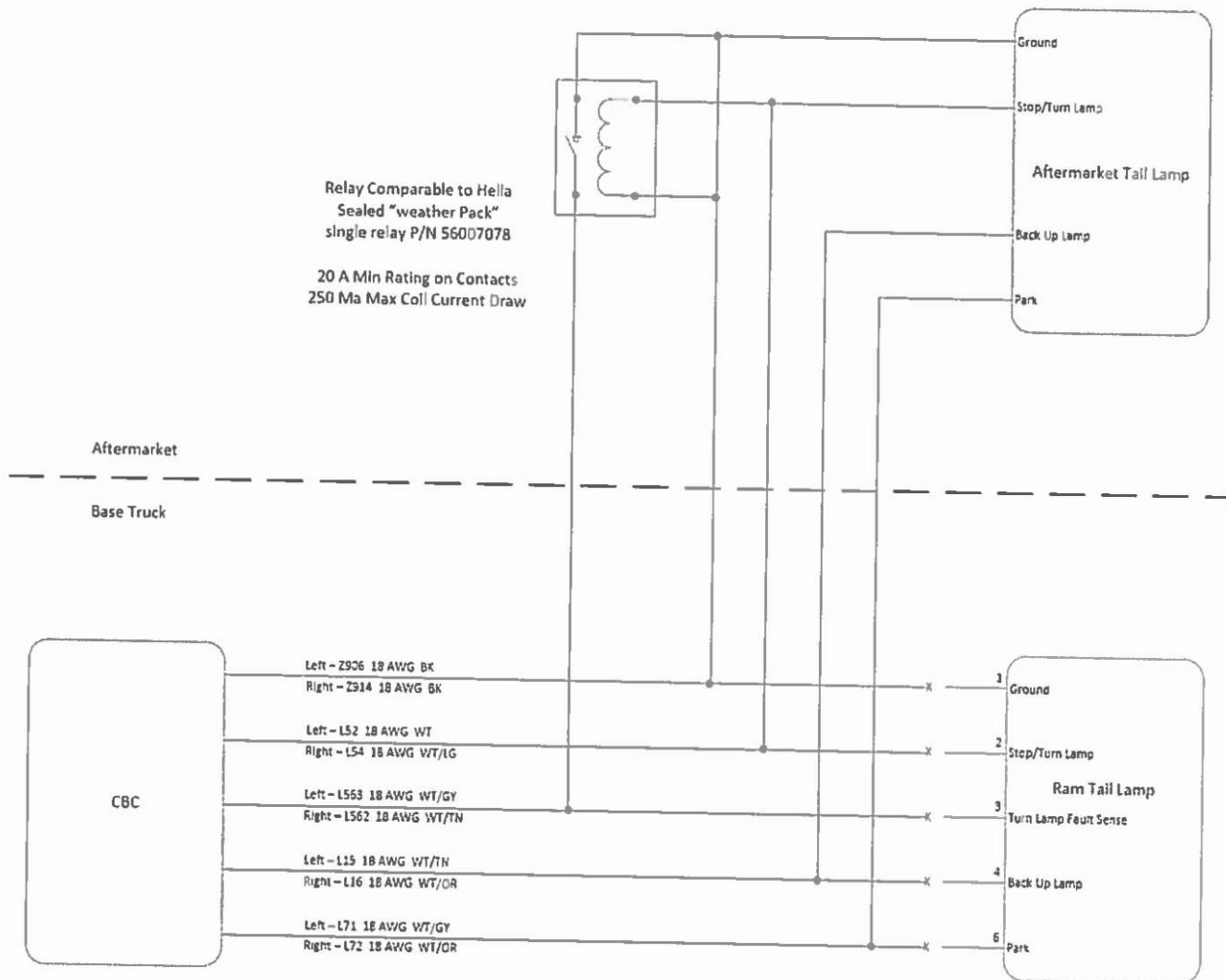
OEMs are required to perform diagnostics on certain lighting circuits. In the tail lamps, this requirement applies to the turn signals. In vehicles with LED tail lamps, there is circuitry built into the LED array that determines if the LEDs are illuminating when the turn signal is on. The LED array sends a voltage out on the diagnostics circuit. The diagnostics voltage is read by the CBC. (Central Body Controller) The CBC controls all exterior lighting on the vehicle. When the turn signal array is illuminated, the voltage on the diagnostics circuit is low. Conversely, when the array is off, the diagnostics voltage is high. The diagnostic voltage cycles as the turn signal flashes. The CBC compares the state of the diagnostic voltage to the desired state of the turn signal circuit. If the states are incorrect, the CBC tells the Cluster there is a turn signal fault and the cluster "fast flashes" the turn signal indicator and displays a bulb out message.

To add aftermarket tail lamps, disconnect the production tail lamps in the vehicle. Connect the ground, stop/turn, back up and park lamp circuits of the vehicle to the appropriate circuits provided with the aftermarket tail lamp. (see attached schematic for details) Attach one side of the coil of a normally open SPST relay to the stop/turn lamp circuit. Ground the other side of the coil. Attach one side of the relay contacts to the diagnostics circuit. Ground the other side of the contacts. The attached schematic shows both relay grounds being made through tail lamp ground circuit. If this is not convenient, the relay grounds may be tied to chassis. Separate relays must be used for the left and right turn signals.

2014 2500/3500 EXTERIOR LIGHTING MODIFICATIONS / LED'S

The preferred method for connecting the aftermarket lights to the vehicle wiring would be to use some sort of sealed connector system. Weather Pack has commercially available sealed connector systems. If no connector is available, the vehicle harness connector should be removed and the tail lamp circuits should be butt spliced to the vehicle harness. All splices should be soldered and sealed using self-sealing heat shrink tube. If there is a need to leave the vehicle harness connector intact, a center splice may be used. All splices should be soldered and sealed. The harness connector must be capped. Bundle all splice wires together and secure with tie wraps.

Mount the relays in a location that is shielded from the environment and protected from damage.



Notes & Suggestions

NOT included with the bed and is the buyer's responsibility to handle or purchase.

- The CM installation kit (P/N 1080065) includes a bolt bag and plates for securing the truck bed to the truck frame. **It is highly recommended to purchase the installation kit with any CM truck bed.**
- Resistors and/or relays may be needed during the electrical components installation, depending on the year and model of truck.
- CM harnesses are available for easy truck bed wiring. However, depending on the model of truck, some splicing may be required.
 - If splicing is required, it is highly recommended to use water-resistant materials such as heat-shrink butt connectors.
- Installing cameras, backup sensors, or other equipment is not included in the standard installation price and may incur an additional charge
- By modifying your truck for an aftermarket flatbed, you may experience temperamental fuel filling that could require you to turn the nozzle in a certain direction or hang the pump at a certain angle to retain full-speed fill rates. If factory fuel filling performance is critical, we recommend you retain a factory truck bed.
- The vehicle's exhaust may require modification after install. This is not included & is your responsibility.
- For gas trucks, a grounding strap attached to the fuel fill box may be required to prevent static electricity & sparking.
- Certain years and models of trucks may require computer re-flashing or programming by franchise dealer after truck bed installation. This is not included & is your responsibility.
 - **2017 and newer Ford Super Duty Bed Delete Customers Only:** Ford has released a service bulletin regarding hyper flashing, as well as other electrical components not functioning correctly after a factory bed is removed due to the body control module (BCM) programming. It is possible that your truck might exhibit these issues after bed installation. These issues have been known to resolve themselves after several days of driving the vehicle. If issues persist, you may need to have your BCM flashed at your local Ford dealership. This service is not included in our standard installation pricing.
- CM's 1-year finish warranty does not cover normal wear including physical damage, chipping, scratching, fading, cracks in caulk seams, road salt, or tar damage. Rust streaking originating from areas where it is virtually impossible to achieve total paint or powder coat coverage, i.e. behind rub rails or where two or more metals adjoin, are considered to be consistent with industry standards and not covered.