

# DK2UCKPD

**PIERCE**<sup>®</sup>  
PULLING FOR YOU

CHEVY / GM 1988-1998 LONG BED  
OWNER'S MANUAL  
DUMP KITS



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- receive quick technical service help if you encounter a problem

LM-01-00-0002 v1.1.0

## DISCLAIMER

The PIERCE Dump Kit is a powerful machine and must be used with extreme care. Deviating from the manual's instructions may cause personal injury. Warranty will be voided if you do not follow the precautions and guidelines outlined in this manual. Keep this manual in a safe place to reference safety and installation instructions, maintenance guidelines, and operating recommendations. The owner, operator, and installer must read the entire owner's manual before operating the dump kit. For a digital copy of the manual visit [www.piercearrowinc.com/pierce-arrow-manuals](http://www.piercearrowinc.com/pierce-arrow-manuals).

## SAFETY WARNINGS

- Follow all safety rules provided with the power tools used to install your kit.
- Use correctly sized lifting equipment to raise the bed of your truck.
- Always have a backup device in place when working under the bed on your truck. This is in addition to the primary hoist or prop mechanism.
- Wear safety glasses.
- Use UL rated grounded electrical cords and tools.
- Your gas tank is located very close to the scissor and other kit components. Cover with a fireproof tarp and do not allow any sparks in this area. Clean any spills with oil absorbent materials.
- Check bed clearance after the hinges are installed to ensure that the bed will not hit the cab during operation.
- Suspension travel must be accounted for when installing the kit ensure there is plenty of clearance between the bed and the drive shaft, especially on lowered vehicles.
- During operation, always level the load in your bed.
- Be sure no one is close enough to be injured when you dump the load from your bed.
- Do not exceed the cargo capacity as listed by the truck manufacturer. The kit will lift a level, evenly distributed load of up to 4,000 lbs., including the weight of the bed.
- Ensure the truck is level when operating.
- Grease pins and all moving components monthly.
- Tow trailers only with an appropriated classified receiver hitch. Do not use the bumper for any towing.

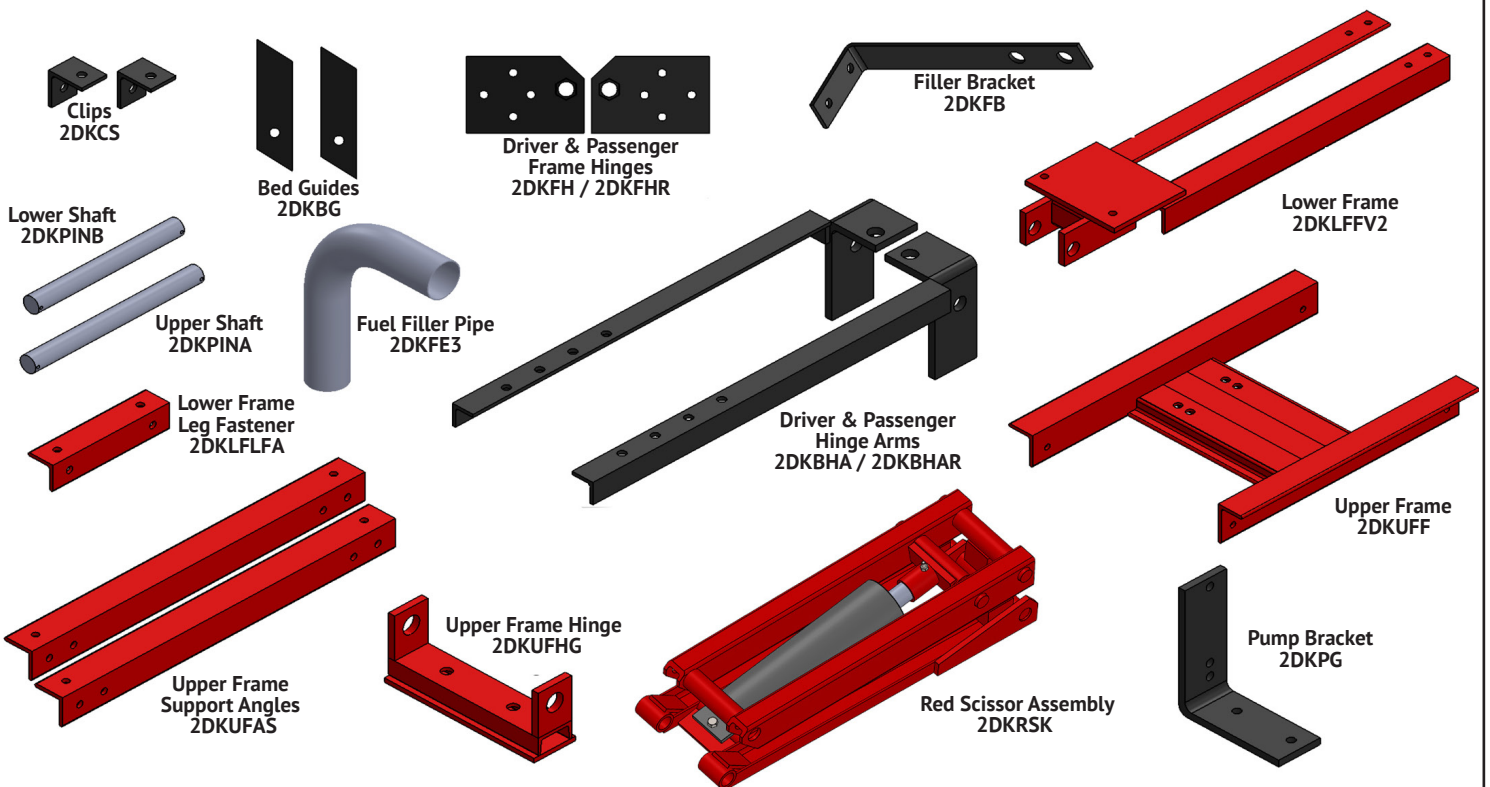
## TOOLS AND EQUIPMENT

- Hacksaw or reciprocating saw
- Welder and weld shop availability
- Rated hoist or lifting device
- Cutting torch
- Portable electric drill and various sized drill bits
- Various sockets, wrenches, and a 3/16" hex key
- Tape measure
- C clamps and vise grips
- Safety glasses
- Welders mask/helmet
- Up to 2 gallons of automatic transmission fluid
- Fireproof tarp

# DUMP KIT CONTENTS

2

Part Number	Quantity	Description
2DKFH / 2DKFHR	2	Driver & Passenger Frame Hinges
2DKBHA / 2DKBHAR	2	Driver & Passenger Hinge Arms
2DKCS	2	Clips
2DKLFLFA	1	Lower Frame Leg Fastener
2DKUFGH	1	Upper Frame Hinge
2DKPINB	1	Lower Shaft
2DKPINA	1	Upper Shaft
2DKBG	2	Bed Guides
2DKPG	1	Pump Bracket
2DKFB	1	Filler Bracket
2DKFE3	1	Fuel Filler Pipe
2DKRSK	1	Scissor Assembly
2DKUFF	1	Upper Frame
2DKLFFV2	1	Lower Frame
2DKUFAS	2	Upper Frame Support Angles



**DK2UCKPD Parts Breakdown**

# 3 ELECTRICAL + HARDWARE

Part Number	Quantity	Description
<b>Bolts</b>		
PS545	22	3/8" x 1" Grade 8 Bolt
0115107	2	3/8" x 1-1/4" Grade 8 Bolt
0144569	8	3/8" x 3-1/2" Grade 8 Tap Bolt
15209	2	1/2" x 1-1/2" Grade 8 Bolt
0115213	2	1/2" x 2-1/2" Grade 8 Bolt
11108184	2	5/8" x 2-1/2" Grade 8 Bolt
<b>Washers</b>		
1133815	8	3/8" Grade 8 Flat Washer
PS544	2	3/8" Grade 8 Lock Washer
33819	2	5/8" Flat Washer
<b>Nuts</b>		
0169084	30	3/8" Grade 8 Locknut
1137187	4	1/2" Grade 8 Locknut
0169088	2	5/8" Grade 8 Locknut
<b>Controls</b>		
CP077K	1	2 Button Control with 20' Cord (Power Up / Power Down)
CP271MTE	1	2 Button Control with 15' Cord (Power Up / Gravity Down)
<b>Electrical</b>		
PS501	20 FT	Black #4 Welding Wire
PS501R	20 FT	Red #4 Welding Wire
PS006	6	4 Gauge 5/16" Battery Eye Terminal
76631	1	200 Amp Breaker
<b>Hardware</b>		
0429201	2	2" Hose Clamp
0429146	1	3" Hose Clamp
45513	60 IN	3/16" Vinyl Coated Galvanized Cable
43401	2	1/8" Cable Clamp
2DKRBA	2	Adhesive Rubber Bumper
65080	4	1/8" x 2" Cotter Pin
9629	12	8" Black Zip Tie



# HYDRAULIC CONTENT

Part Number	Quantity	Description	Gravity Down	Power Up/Down
P050H	1	5' Hose	X	X
P050H2	1	7' Hose		X
143	1	90° 3/8" Male x 1/4" Female Pipe Fitting	X	
14490	2	90° 9/16" x 1/4" SAE O-Ring Fitting		X
PM-319-6P	1	Bucher Power Up Gravity Down Pump	X	
PM-3551	1	Bucher Power Up Power Down Pump		X



P050H



P050H2



143



14490

PM-319-6P		SPECIFICATIONS	
	<b>MANUFACTURER PART NO:</b>	M-319-0384	
	<b>KIT TYPE</b>	Power Up / Gravity Down	
	<b>PRESSURE</b>	2,500 PSI	
	<b>TANK CAPACITY</b>	6 Qt	
	<b>RESERVOIR MATERIAL</b>	High Density Polyethylene	
	<b>OVERALL DIMENSIONS</b>	20.4" x 6.7" x 7.7"	
	<b>HOSE CONNECTION</b>	3/8" Pipe	
	<b>VOLTAGE</b>	12 V	
<b>TYPE OF FLUID</b>	Automatic Transmission Fluid		

PM-3551		SPECIFICATIONS	
	<b>MANUFACTURER PART NO:</b>	M-3551-0262	
	<b>KIT TYPE</b>	Power Up / Power Down	
	<b>PRESSURE</b>	2,500 and 500 PSI	
	<b>TANK CAPACITY</b>	2 Gal.	
	<b>RESERVOIR MATERIAL</b>	High Density Polyethylene	
	<b>OVERALL DIMENSIONS</b>	23.125" x 6.7" x 7.84"	
	<b>HOSE CONNECTION</b>	#6 SAE	
	<b>VOLTAGE</b>	12 V	
<b>TYPE OF FLUID</b>	Automatic Transmission Fluid		

**CHASSIS FRAME**

- The frame on the truck.

**BED CROSSMEMBER**

- The channel running perpendicular on the bed of the truck.

**CAB CHASSIS CROSSMEMBER**

- The channel or pipe running perpendicular to the truck, closest to the cab.

**CHASSIS CROSSMEMBER**

- The channel or pipe running perpendicular to the truck, furthest from the cab.

**DIFFERENTIAL**

- Gear train on the rear axle.

**DRIVE SHAFT**

- a longitudinal shaft that deliver power from an engine to the other end of the vehicle before it goes to the wheels.

**WHEEL WELL**

- Recessed location on truck bed where the tire goes.

**SPRING HANGER**

- Provides a frame connections for the leaf springs on the suspension systems of trucks.

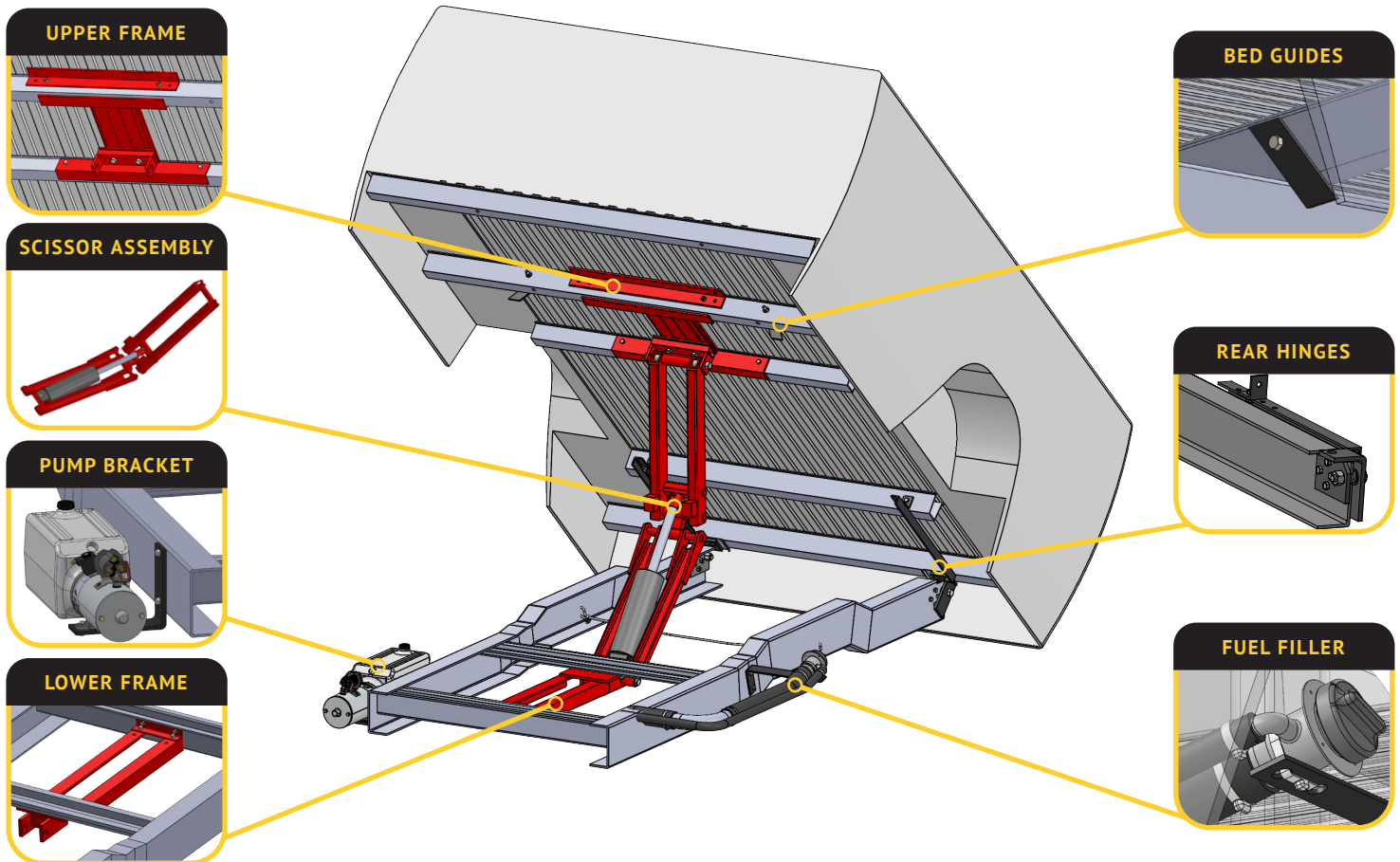
**DIAMETER**

- The distance from one point on a circle to the opposite point on the other side of the circle.

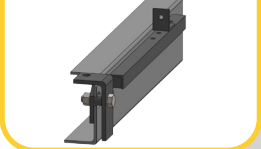
**RADIUS**

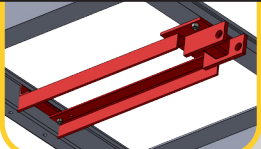
- The distance from the center point of a circle to the circle.

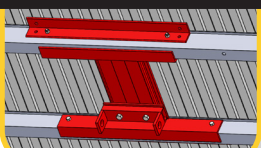
# OVERVIEW

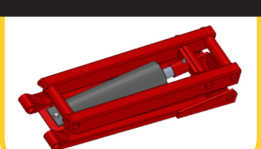


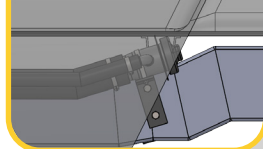
This overview is meant to provide a general idea of the process and order in which an individual will install this kit. It is important to read the manual to its fullest as it contains more detailed steps that are crucial to the successful installation of this kit.

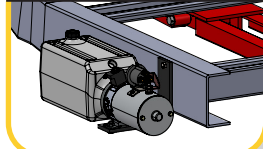
- 1. REAR HINGES**  


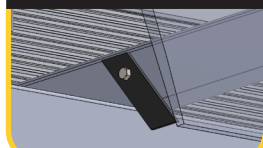
Disconnect all bed fasteners and electrical wiring, remove the bumper, and raise the bed to install the hinges.
- 2. LOWER FRAME**  



Mount the lower frame to the chassis crossmember.
- 3. UPPER FRAME**  


Mount the upper frame to the bed crossmembers.
- 4. SCISSOR ASSEMBLY**  


Connect the scissor assembly to the upper and lower frames.
- 5. FUEL FILLER**  


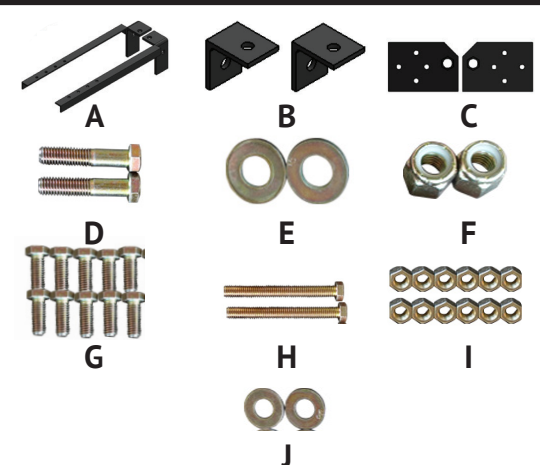
Relocate the fuel filler supply line.
- 6. PUMP BRACKET**  


Mount the pump in a safe location on the chassis frame. Fill the pump reservoir with automatic transmission fluid.
- 7. BED GUIDES**  


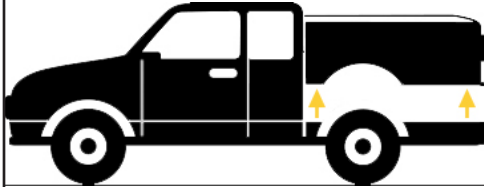
Install bed guides to keep the bed aligned.
- 8. WIRING**  


Connect wiring to the pump and hydraulic hoses to the cylinder.

# 7 REAR HINGES

PART	PART NO.	QUANTITY	IMAGES
Driver + Passenger Hinge Arms	A	2	
Clips	B	2	
Driver + Passenger Frame Hinges	C	2	
5/8" x 2-1/2" Hex Bolt	D	2	
5/8" Flat Washer	E	2	
5/8" Lock Nut	F	2	
3/8" x 1" Hex Bolt	G	10	
3/8" x 3-1/2" Tap Bolt	H	2	
3/8" Lock Nut	I	12	
3/8 Flat Washer	J	2	

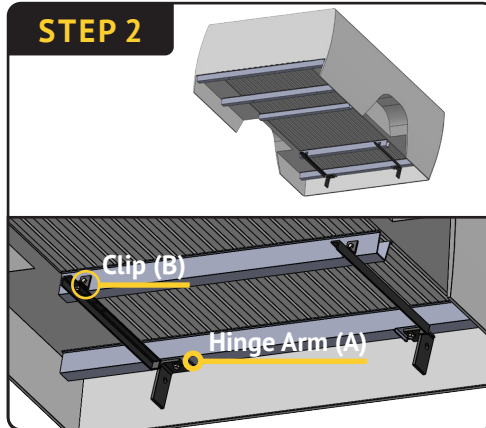
## STEP 1



- Remove the fuel filler assembly.
- Mark the original position of the bed on the chassis frame.
- Remove the spare tire lowering mechanism from the bumper.
- Disconnect the wiring to the bed and rear bumper.
- Remove the rear bumper.
- Remove the bed to chassis frame bolts.
- Raise rear of the bed 6-12 inches above the chassis frame.
- There is a raised lip that surrounds the rearmost bed to chassis frame bolt. The outer lip, running lengthwise, prevents the hinge arm from fitting level on the bottom of the bed crossmember. Hammer that outer lip flat.\*

\*NOTE: Refer to RAISED BED LIP image on page 8 for a better understanding of what to look for.

## STEP 2

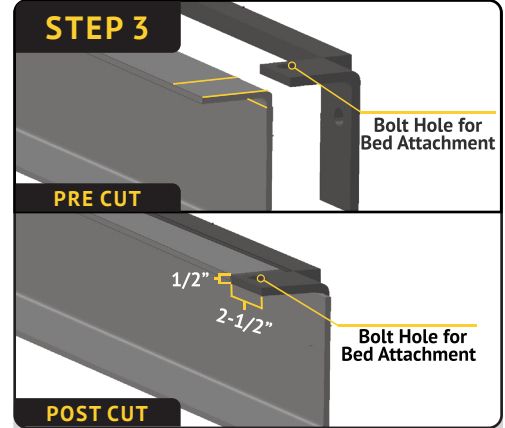


- Attach **Hinge Arm (A)** to the bottom of the bed crossmember at the rearmost bed to chassis frame mounting hole. Use factory bolt.
- The long arm of the hinge arm will extend along the outside of the chassis frame.
- Attach **Clips (B)** to the top of the hinge arms using 2 - **3/8" x 1" Bolt (G)** and secure using 2 - **3/8" Lock Nut (I)**.
- Attach the other half of the clips to the bed crossmember using 2 - **3/8" x 1" Bolt (G)**. Place a **3/8" Flat Washer (J)** between the bed crossmember and the **3/8" Lock Nut (I)**.
- The **Clips (B)** will rest against the rearmost bed cross member.
- Lower the bed so the **Hinge Arms (A)** rest on the frame in their original factory position.

NOTE: Bed should remain in original factory location. Use bed to determine mounting holes.

NOTE: In some installations the arm may interfere with the spring hanger and leaf spring. You may be required to cut a notch for clearance.

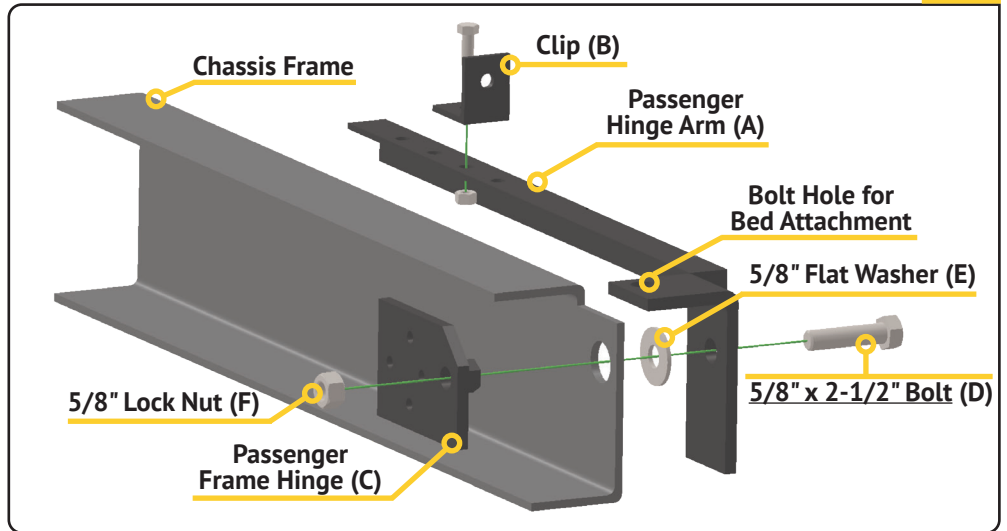
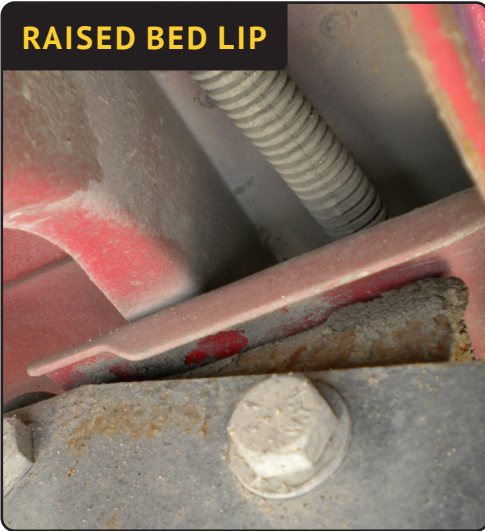
## STEP 3



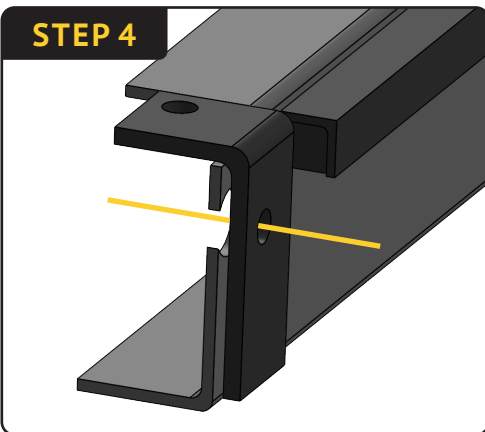
- Mark on the chassis frame at the front and back edge of the **Hinge Arms (A)**. Then raise the rear of the bed again.
- Cut a rectangular piece off the top of the chassis frame, from the front mark to the rear mark.
- You may find this cut reaches the end of the chassis frame. This cut provides a recess for the top of the hinge arm so it does not hold the bed up from the original position.
- This cut should be 1/2" deep and 2.5" wide.



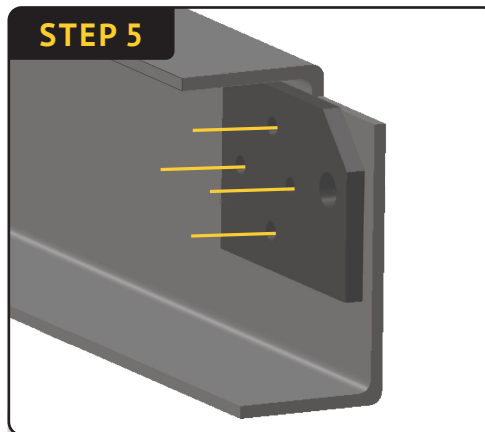
## RAISED BED LIP



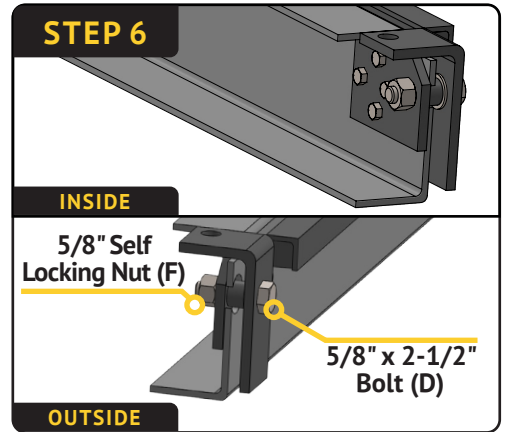
## STEP 4



## STEP 5



## STEP 6



- The pivot hole is in the vertical portion of the **Hinge Arm (A)**, just outside the chassis frame.
- Be sure the hinge arm is aligned with the centerline of the truck and is not rotated left or right.
- Mark through the pivot hole on the chassis frame, the point at which the **5/8" x 2-1/2" Bolt (D)** will pass through the chassis frame to enter the pivot hole in the hinge arm.
- A clearance cut must be made for the spacer and the weld around the spacer to pass through the frame.
- Your cut should be around 3/4" radius, making the entire cut around 1-1/2" diameter.

- The **Frame Hinge (C)** will fit inside the chassis frame with the spacer protruding from inside the chassis frame, through the frame, aimed exactly at the pivot hole.
- Place the frame hinge on the inside of the frame with the spacer extending through the cut towards the pivot hole in the hinge arm.
- Install the 2- **5/8" x 2-1/2" Bolts (D)** and 2- **5/8" Self Locking Nut (F)** loosely. Tighten until clearance is gone, but not clamping.
- Mark the hinge bolt locations on the frame, remove the frame hinge, and drill the hinge holes.

- Mount each frame hinge with 4 - **3/8" x 1" hex bolts (G)**, and a **3/8" Locknut (I)**.
- Install with 2- **5/8" x 2-1/2" Bolt (D)**, 2- **5/8" Flat washer (E)** and 2- **5/8" self locking nut (F)**.
- The pivot bolt (5/8" x 2-1/2" Bolt) should be tight enough to remove the clearance but loose enough for the bed to freely rotate.
- The hinge arm should rotate without hitting the bolt heads securing the frame hinge to the chassis frame. All pivot points should be greased heavily at final assembly.
- Reconnect the wiring.

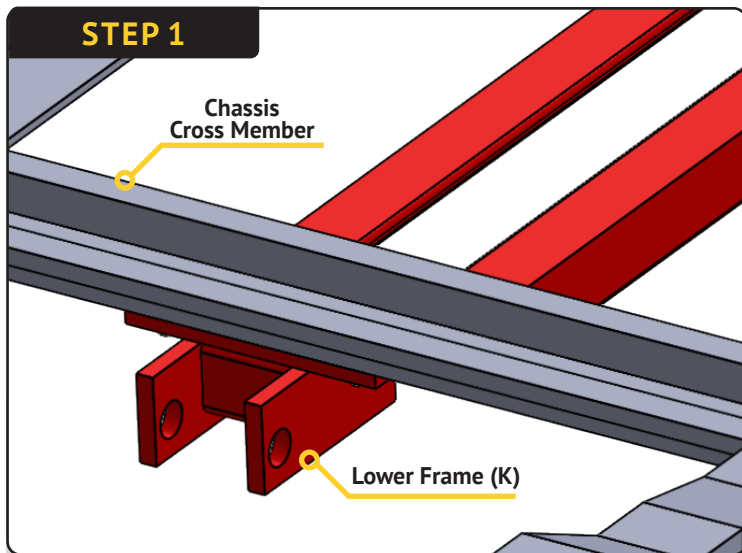
**NOTE:** This cut will usually extend off the rear edge of the chassis frame, as seen above in Step 4. This is not a concern as the hinge bolt rides on the frame hinge not the chassis.

**NOTE:** If there is inadequate room for all 4 bolts on the frame hinge. Cut off what you need and bolt the rest. Optionally tack or weld in place. If you do weld, disconnect the battery. Never weld forward of spring hanger.

**NOTE:** Reduce excessive clearance between spacer on the frame hinge and the pivot hole on the hinge arm, by installing 5/8" washers between the bed hinge arms and the frame hinge.

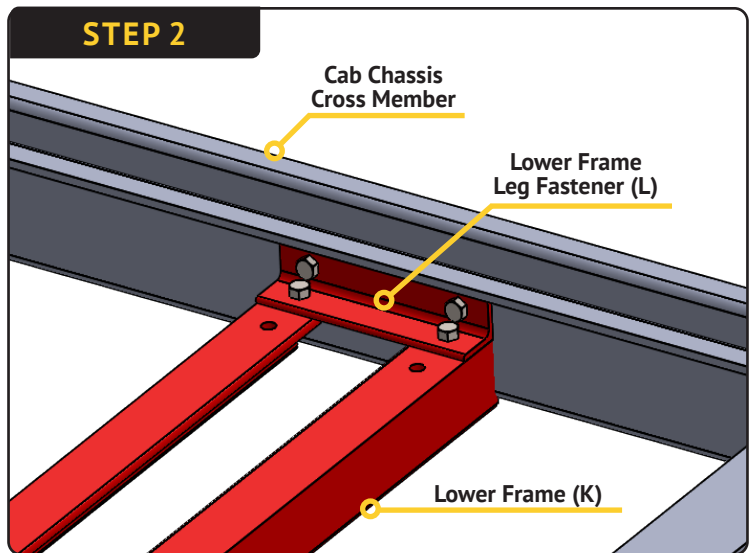
# 9 LOWER + UPPER FRAME

PART	PART NO.	QUANTITY	IMAGES
Lower Frame	K	1	
Lower Frame Leg Fastener	L	1	
Upper Frame	M	1	
Upper Frame Support Angles	N	2	
Upper Frame Hinge	O	1	
1/2" x 2-1/2" Bolt	P	2	
1/2" x 1-1/2" Bolt	Q	2	
3/8" x 3-1/2" Bolt	R	4	
3/8" x 1" Bolt	S	8	
3/8 Flat Washer	T	4	
1/2" Lock Nut	U	4	
3/8 Lock Nut	V	12	



- Mount the **Lower Frame (K)** using 2- **1/2" x 1-1/2" Bolts (O)** and 2- **1/2" Lock Nuts (U)** to the chassis cross member where the rear edge of the plate aligns with the rear vertical side of the chassis cross member.
- This scissor assembly should be parallel to the truck center line, yet lining up with the scissor location on the upper frame.

**NOTE:** The distance from the center of the chassis cross member to the rear vertical edge of the cab chassis cross member is 27" on most 88 - 98 Chevy and GM Long Beds. Approximately 1% of trucks will measure 25-5/16". In this case, the lower frame should be cut from 24" to 22.25".



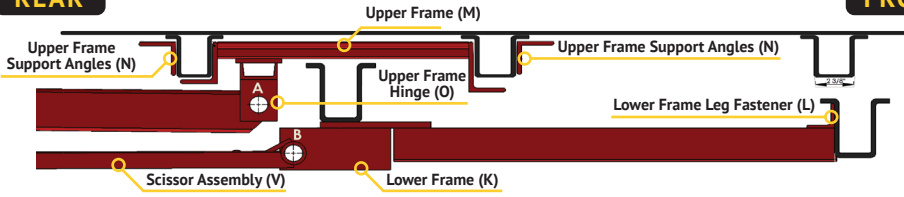
- Attach the **Lower Frame Leg Fastener (L)** using the 4 - **3/8" x 1" Bolt (S)** and the 4 - **3/8" Lock Nut (V)** to the lower frame and to the cab cross member just behind the cab.

**NOTE:** On some models there is a carrier bearing bracket bolted to the cab chassis cross member. In this case you would shorten the lower frame and drill new holes to mount the Lower Frame Support Angle to the Lower frame. Two new holes will be drilled through the Lower Frame Support Angle and the Carrier Bearing Bracket. Once completed the Lower Frame will be bolted to the Carrier Bearing Bracket.

## DUMP KIT PARTS

REAR

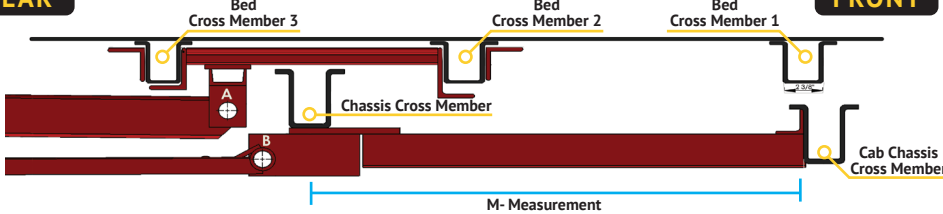
FRONT



## BED PARTS

REAR

FRONT



## M - MEASUREMENT

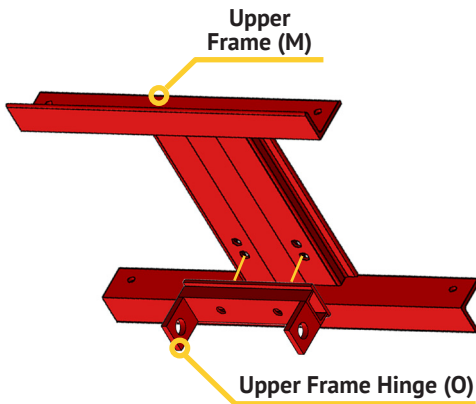
**NOTE:** The distance from the center of the chassis cross member to the rear vertical edge of the cab chassis cross member is 27" on most 88 - 98 Chevy and GM Long Beds. Approximately 1% of trucks will measure 25-5/16". In this case, the lower frame should be cut from 24" to 22.25".

M = 27" on 11 of 13 long bed trucks measured.

M = 25-5/16" on 2 of 13 long bed trucks measured.

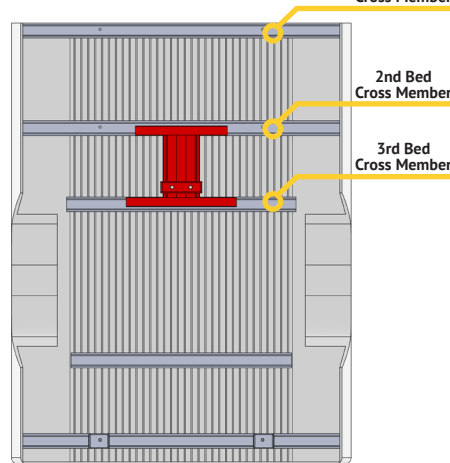
What is M on your truck?

### STEP 3



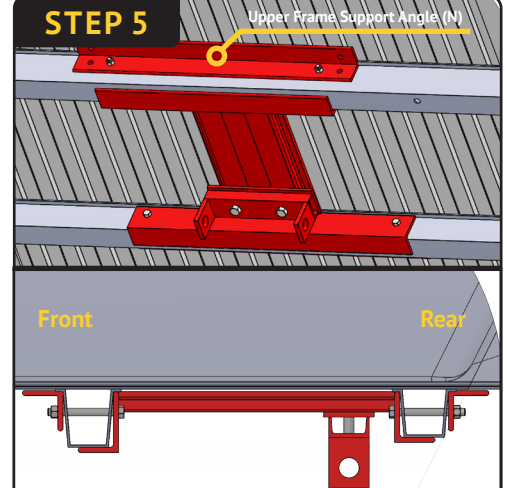
- Mount the **Upper Frame Hinge (O)** to the **Upper Frame (M)** using 2- **1/2" x 2-1/2" Bolt (P)** and 2- **1/2" Lock Nut (U)**.
- Use the set of holes closest to the 24" piece of angle, on the upper frame.

### STEP 4



- The upper frame will install between the 2nd and 3rd bed cross members. The 1st bed cross member is the one closest to the cab.
- Place the 24" angle side of the upper frame (The side closest to the **Upper Frame Hinge (O)**) against the 3rd bed cross member.
- This will place the upper frame hinge towards the rear of the truck.

### STEP 5

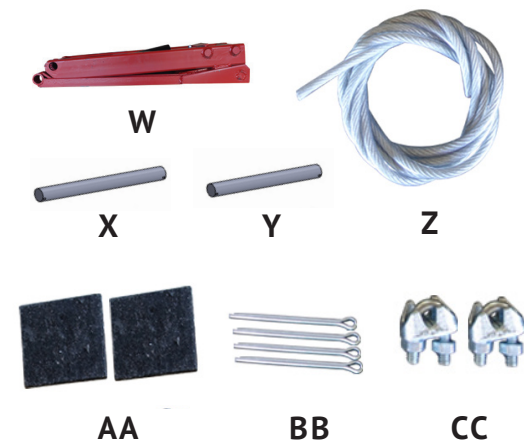


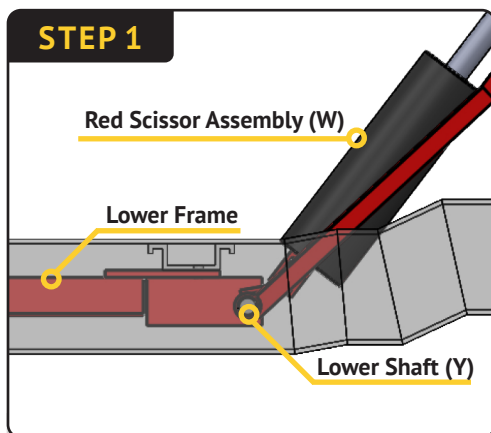
DRIVER SIDE

- Use the **Upper Frame Support Angles (N)** when attaching the upper frame to the bed to prevent crushing the thin metal of the bed cross members.
- Horizontally, bolt the upper frame through the bed cross member to the backup angle with the supplied 4- **3/8" x 3-1/2" Bolts (R)** and 4- **3/8" Lock Nut (V)**.
- Also bolt the backup angles to the bed using the 4- **3/8" x 1" Bolt (S)**, 4- **3/8" Flat Washer (T)** and 4- **3/8" Lock Nut (V)**.

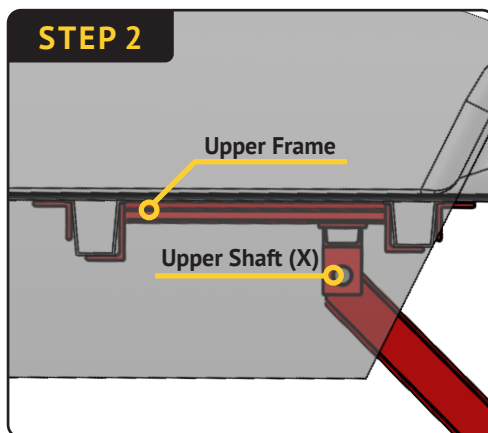
**NOTE:** The left to right positioning of the upper frame should put the scissor assembly as close as possible to the center line, but clearing the fuel tank by at least 1/2".

# 11 SCISSOR ASSEMBLY

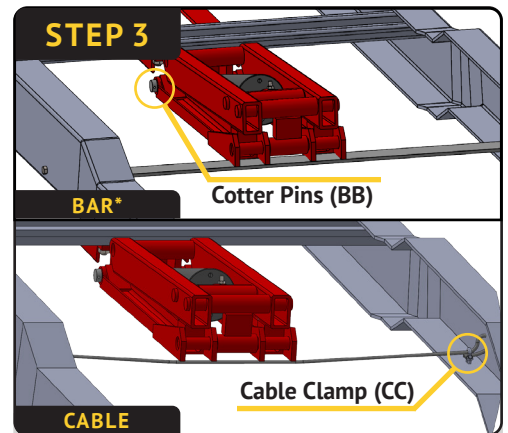
PART	PART NO.	QUANTITY	IMAGES
Red Scissor Assembly	W	1	
Upper Shaft	X	1	
Lower Shaft	Y	1	
Support Cable	Z	1	
Rubber Pads	AA	2	
Cotter Pins	BB	4	
1/8" Cable Clamp	CC	2	



- When the bed is down, the scissor should be high enough above the differential that it never touches.
- For safety, reroute any brake lines from the top of the differential to the side.
- Attach the bottom section of the **Red Scissor Assembly (W)** to the lower frame using the 15/16" x 8.75" pin **Lower Shaft (Y)**.
- Secure using 2 of the **Cotter Pins (BB)**.




- Remove the plug from the hydraulic port on the base end of the cylinder using a 3/16" Hex wrench.
- The scissor assembly will hang over the differential. Make sure that the scissor assembly is installed where it will clear when the rear suspension is fully compressed.
- Attach the top section of the scissor assembly to the upper frame using the **Upper Shaft (X)**.
- Secure using 2 of the **Cotter Pins (BB)**.

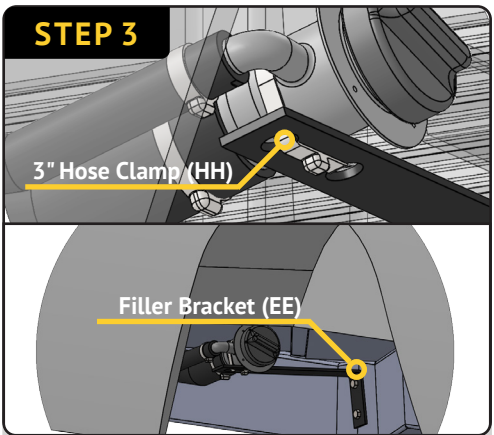
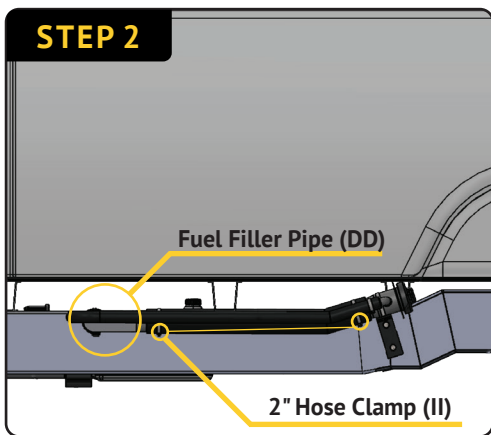
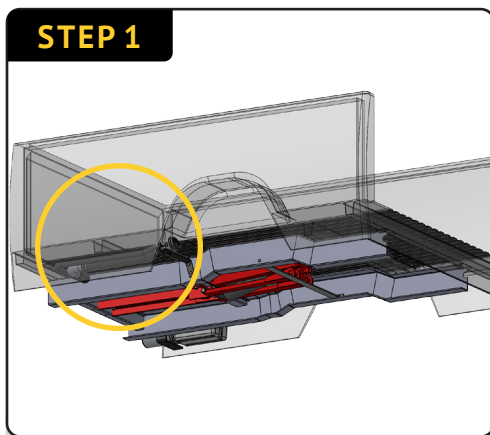


- Install the **Support Cable (Z)** or make a support bar for the scissor assembly to rest on.
- Use the 2- **1/8" Cable Clamps (CC)** to install the support cable to the chasis frame of the truck.
- Install the **Rubber Pads (AA)**. The bed should contact these for a quieter operation.
- Clean off desired location on the 1st bed crossmember, where it makes contact with the chasis frame.
- Remove the adhesive back and attach the rubber pads to the location you have cleaned. The Rubber pad should now rest between the bed crossmember and the chasis frame.

**NOTE:** If the scissor assembly is not high enough to clear the differential you can unmount the **Upper Frame (M)** and move the **Upper Frame Hinge (O)** to the second set of mounting holes, 1-1/4" forward of the original location.

**NOTE:** \*A support bar is not included in the kit.

PART	PART NO.	QUANTITY	IMAGES
Fuel Filler Pipe	DD	1	
Filler Bracket	EE	1	
3/8" x 1 Hex Bolt	FF	2	
3/8" Lock Nut	GG	2	
3" Hose Clamp	HH	1	
2" Hose Clamp	II	2	



- The fuel filler can be shortened and left in place at the front of the bed. Simple, but requires raising the bed a short distance to add fuel.
- The alternative is to install the filler in the wheel well as high as possible and clear of the wheel using the **8" x 10" Fuel Filler Pipe (DD)** to extend the filler neck to the wheel well.

- Cut the rubber hose between the fuel tank and the filler so there is enough hose at the tank end for the short end of the **Fuel Filler Pipe (DD)** to enter the hose 1-1/2" and clamp with a **2" Hose Clamp (II)**.
- Attach the filler and remaining hose to the long end of the rear wheel well so the filler cap extends just past the two holes in the L-bracket.
- You must shorten the hose for an exact fit.

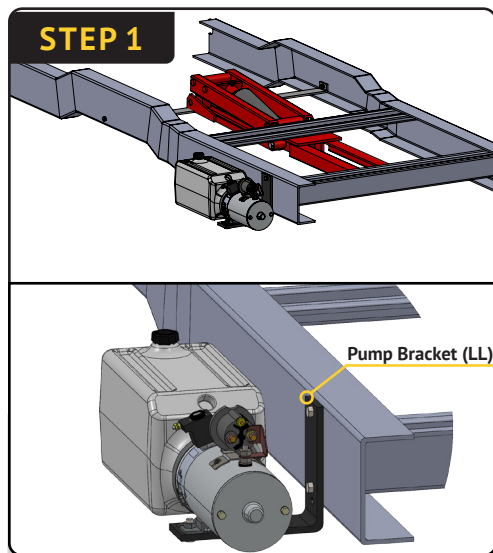
- Use the large **3" Hose Clamp (HH)** to pass through the holes in the L shaped **Filler Bracket (EE)** and around the filler.
- Mount the filler bracket in any safe convenient position with the 2 - **3/8" x 1" Hex Bolt (FF)** and 2 - **3/8" Lock Nut (GG)**.
- The vent hose must also be extended from the tank to the filler.
- The third small vent hose can be relocated to the back of the cab where it will not interfere with movement of the bed when dumping.

**NOTE:** The filler should be in the upper forward part of the wheel well opening, at an angle to meet the fuel pump nozzle from a fuel pump. The filler must also be located so the tire will not touch it at any point.

# 13 PUMP BRACKET

PART	PART NO.	QUANTITY	IMAGES
PM-319-6P	JJ	1	
PM-3551**	KK	1	
Pump Bracket	LL	1	
5' Hydraulic Hose	MM	1	
7' Hydraulic Hose**	NN	1	
143 Fitting	OO	1	
14490 Fitting**	PP	2	
3/8" x 1" Hex Bolt	QQ	2	
3/8" x 1-1/4" Hex Bolt	RR	2	
3/8" Lock Washer	SS	2	
3/8" Lock Nut	TT	2	

**\*\*ONLY INCLUDED IN POWER UP / POWER DOWN KITS.**

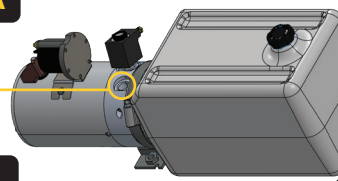


- It is recommended that the pump mount to the outside of the right chassis frame, just forward of the rear spring hanger using the 8" x 7" **Pump Bracket (LL)**.
- The Pump Bracket will be bolted to the chassis frame with 2- **3/8" x 1-1/4" Hex Bolts (RR)** and 2- **3/8" Lock Nuts (TT)**.
- The pump should be mounted level, with the vent/filler facing up using 2- **3/8" x 1" Bolts (QQ)** and 2- **3/8" Lock Washer (SS)**.

**NOTE:** Pump mount location is only a recommendation and not a requirement. The pump can be mounted in any "safe" location.

## STEP 2-A

High Pressure Port



PM-319-6P

### POWER UP GRAVITY DOWN (JJ)

- You may have to remove the magnetic coil in order to attach the adapter fitting to the pump body.
- Attach the end of the **5' Hydraulic Hose (MM)** to the base end of the hydraulic cylinder.
- Install the **143 Pump Fitting (OO)** to the high pressure port and attach the other end of the hydraulic hose.

## STEP 2-B

Low Pressure Port



PM-3551

### POWER UP POWER DOWN (KK)

- Power down kits will have 2 (ports). The port marked C1 is the high-pressure port. The port marked C2 is the low pressure port (return).
- Attach the **5' Hydraulic Hose (MM)** to the base of the cylinder.
- Attach the **7' Hydraulic Hose (NN)** to the top of the Cylinder.
- Install the **14490 Fittings (RR)** in the ports on the pump.
- Attach the other end of the 5' hydraulic hose in the high pressure port C1.
- Attach the other end of the 7' hydraulic hose in the low pressure port C2.

**NOTE:** If the pump ports are not labeled, the port on the left-hand side (with the motor pointing towards you) is the high pressure port C1, and the port on the right is the low pressure port C2.

## STEP 3




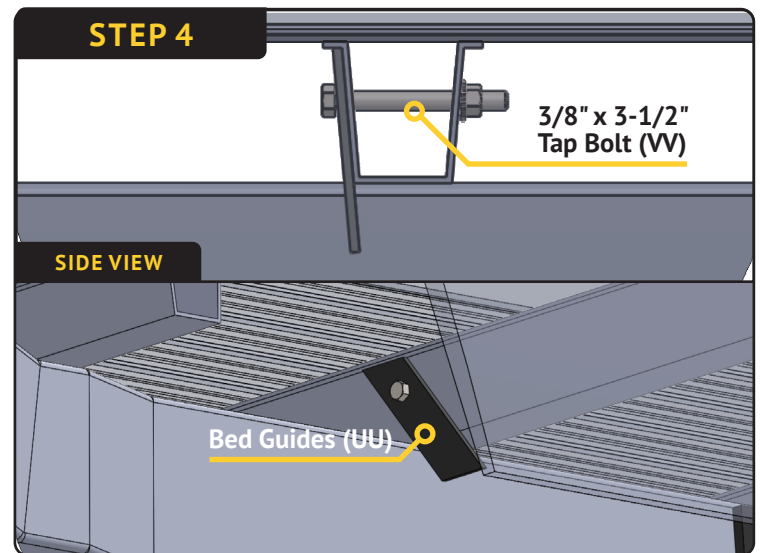
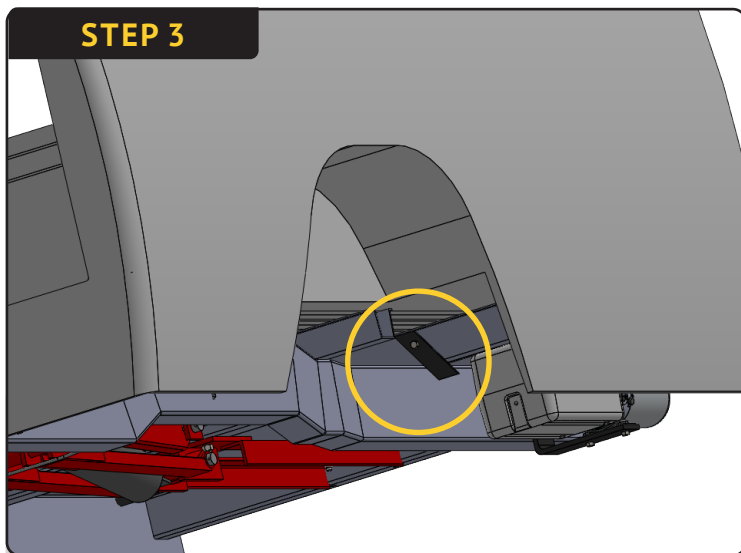
- The pump's reservoir is supplied with a temporary plastic plug in the fill opening.
- Fill with automatic transmission fluid. May require up to 2 gallons.
- Do NOT mix automatic transmission fluid with hydraulic fluid.
- The reservoir is at full capacity when fluid is one inch below the fill opening.
- After filling the reservoir, install the vented plastic plug into the fill opening.

**NOTE:** Actual amount will vary by pump supplied refer to hydraulic contents on page 4 for exact amount.

**NOTE:** Refer to wiring section on page 16 for more detailed hydraulic wiring.

# BED GUIDES



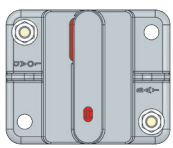


PART	PART NO.	QUANTITY	IMAGES
Bed Guides	UU	2	 UU      VV      WW      XX
3/8" x 3-1/2" Tap Bolt	VV	2	
3/8" Flat Washer	WW	2	
3/8" Lock Nut	XX	2	



- The **Bed Guides (UU)** are the 2 parallelogram shaped pieces that attach to the bed and provide alignment of the bed to the truck, side to side.
- Attach them to bed cross members 2 or 3 and so they make contact with the frame, either inside or outside.

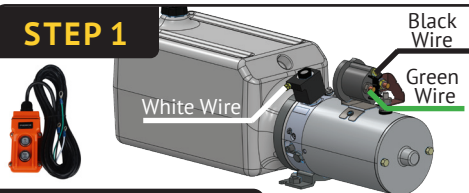
- Bolt through the bed crossmember with the 2- **3/8" x 3-1/2" Tap Bolt (VV)**, 2- **3/8" Flat Washer (WW)**, and secure with the 2- **3/8" Lock Nut (XX)**.
- The bottom of the guides are pointed, so be sure that they do not contact anything other than the edge of the left and right chassis frames.

**NOTE:** Bed crossmember 2 or 3 is the 2nd or 3rd bed crossmember from the cab.

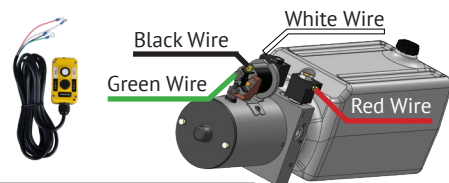
PART	PART NO.	QUANTITY	IMAGES
CP077K**	YY	1	
CP271MTE	ZZ	1	
200 Amp Breaker	AAA	1	
8" Zip Ties	BBB	12	
4 Gauge Red and Black Wire	CCC	20'	
Battery Eyes	DDD	6	

**\*\* ONLY INCLUDED IN POWER UP / POWER DOWN KITS.**

## STEP 1



PM 319-6P + CP271MTE

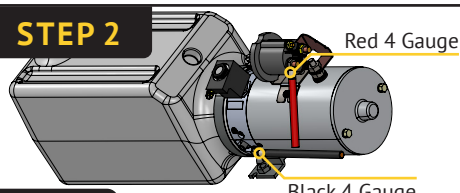


PM 3551 + CP077K

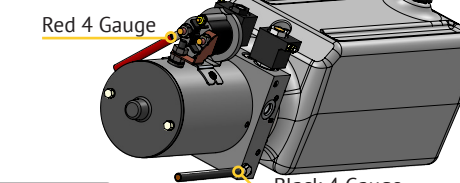
- The power up / gravity down dump kit uses the **CP271MTE (ZZ)** Control which has three wires, green, black, and white.
- The power wire (green) on the pendant control will connect to the large power terminal on the solenoid.
- The "start" wire (black) will connect to the small terminal on the solenoid.
- The "down" wire (white) will connect to the small terminal on the magnetic coil on the c1 port.
- The power up / power down kits use the **CP077K (YY)** Control which has an additional red wire.
- On power down pumps the "up" wire (red) will connect to the magnetic coil on the c2 port.

**NOTE:** See page 16 for more detailed connections.

## STEP 2



PM 319-6P

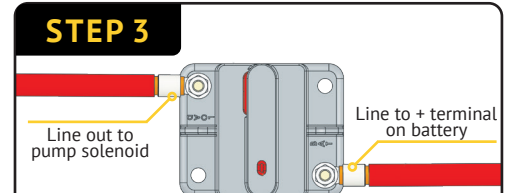


PM 3551

- Use the **Battery Eyes (DDD)** and the **4 Gauge Red and Black Wire (CCC)** to connect the battery to the pump.
- Connect the #4 gauge red wire to the "AUX LOAD" on the circuit breaker, and to the large left post on the solenoid.
- Connect the #4 gauge black wire to the mounting bolt on the side of the pump labeled "GND".
- Route the black wire parallel to the red cable, back to the battery. Connect the black wire directly to the negative terminal of the battery.
- Reattach the negative terminal to the battery post. The ground wire **MUST** be attached as described to the pump and to the battery.
- **DO NOT** cut the black wire short and ground to the frame.

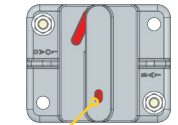
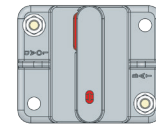
**NOTE:** Be sure not to connect any wire to the solenoid terminal that has a large copper buss bar connecting to the single pump motor terminal. Do not allow any wiring to touch the buss bar, or it's connections. It is NOT a ground, it is the final connection to the motor.

## STEP 3



SET

TRIPPED



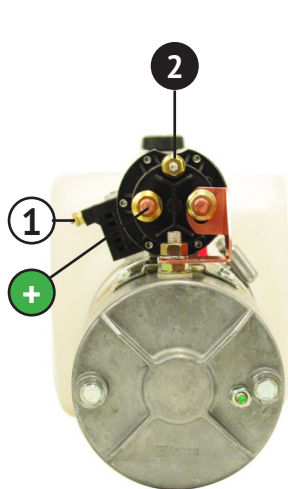
reset button

- Mount the **200 Amp Circuit Breaker (AAA)** as close as possible to the battery.
- Cut the #4 gauge red wire so there is enough cable to reach from the battery's positive terminal to the circuit breaker with a little slack.
- Connect the short cable to the positive terminal and the circuit breaker terminal marked "BAT LINE".
- Using the remainder of the red wire, connect from the circuit breaker terminal marked "AUX LOAD" to the large terminal on the pump solenoid.
- Be sure that the red wire does not rub on anything that has a sharp edge, generates heat, or has moving parts.

**NOTE:** Zip tie the 4 gauge cable to the chassis frame using the **8" Zip Ties (BBB)** to prevent the wire from dragging.



## PM-319-6P



**CP271MTE**

**CONTROL WIRING**

- + POWER (green)
- 1 DOWN (white)
- 2 UP (black)

**NOTE**

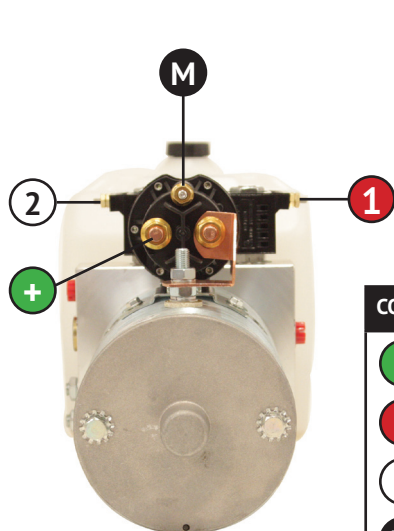
GROUND: Use the 5/16-18" x 3/4" bolt on the left hand side of the pump labeled GND (left in relation to pump motor facing you). Wire the other end of the 4 gauge ground wire directly to the negative terminal on the battery.



**HARNES WIRING**

- + POSITIVE
- NEGATIVE

## PM-3551



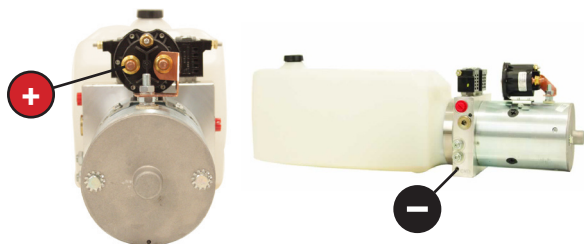
**CP077K**

**CONTROL WIRING**

- + POWER (green)
- 1 UP (red)
- 2 DOWN (white)
- M MASTER (black)

**NOTE**

GROUND: Use the 5/16-18" x 3/4" bolt on the left hand side of the pump labeled GND (left in relation to pump motor facing you). Wire the other end of the 4 gauge ground wire directly to the negative terminal on the battery.

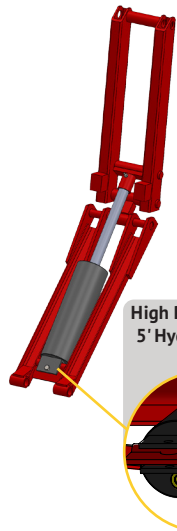


**HARNES WIRING**

- + POSITIVE
- NEGATIVE

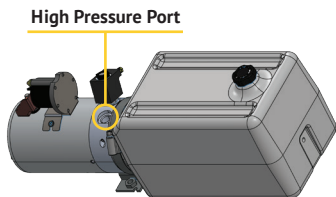
## RED SCISSOR

### POWER UP / GRAVITY DOWN



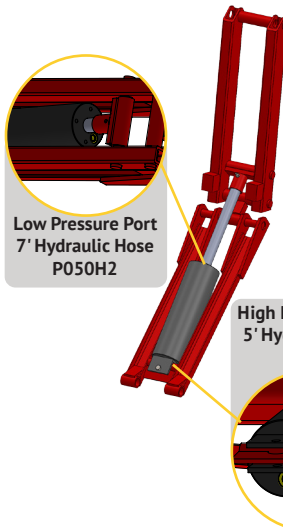
**Directions**

Connect one end of the 5' Hydraulic Hose to the fitting on the high pressure port on the PM-319-6P Pump. Connect the other end of the hose to the base of the hydraulic cylinder.



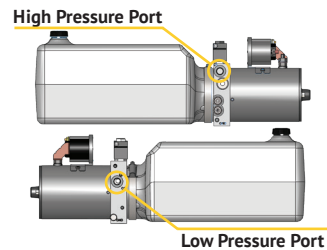
**PM-319-6P**

### POWER UP / POWER DOWN



**Directions**

Connect one end of the 5' Hydraulic Hose to the fitting on the high pressure port on the PM-3551 Pump. Connect the other end of the hose to the base of the hydraulic cylinder. Do the same for the 7' Hydraulic Hose connecting it to the low pressure port on the top of the cylinder and low pressure port on the pump.



**PM-3551**

Now that you have completed the installation of your PIERCE dump bed kit, there are just a few more steps to take that will ensure that your new tool works hard for years to come.

- Make sure that all the pins and grease-able components are properly greased with a grease gun.
- Check again that all wiring is now relocated and re-connected in a manner that will not cause interference with any moving components.
- Make sure that all lights on the bed are working properly.
- Raise and lower the kit all the way 4-5 times to ensure that there is no air in your hydraulic hoses. Add fluid if needed.
- Do a final walk-through and make sure that all bolts are tight and secure. Snap a few photos and send them over to Sales@piercesales.com.
- Enjoy your new PIERCE dump kit!

## MAINTENANCE

- Grease all pins, scissor assembly and hinges monthly.
- Fluid should be changed yearly. Once the reservoir is drained, remove the reservoir. Using a mild solvent, clean the screen filter on the suction tube. While the reservoir is off, clean out any debris. Re-install the reservoir, making sure to lubricate the sealing o-ring with hydraulic oil or ATF before seating to assist in re-installation. Tighten all screws/hose clamps.
- Check wiring, all connections, terminals and battery yearly. Corrosion will cause voltage drops. When corrosion is found, remove any corroded wire and replace any terminals when necessary. If any wire is found frayed or cut, it must be replaced.
- Clean the kit regularly to maintain the durability of the parts. This should be done especially in coastal areas or areas with salty conditions.

## REAR BUMPER + TOWING

The rear bumper is only decorative and provides no function when the hoist kit is installed. Trailers should **NOT** be towed by the bumper. If there is no receiver hitch, the bumper brackets should be welded to the hinge arms so the bumper will rotate with the bed. The warning label provided with the kit should be applied to the bumper where it is clear and visible.

Receiver hitches should be removed before installing your hoist kit. Upon completion, raise the bed to the highest point, place your receiver hitch near the frame where it is clear of the bed and bumper. You will need to cut and modify the receiver hitch to fit in this new, closer to the front, location. The receiver should be reinforced and welded in place. Note that any modification to the receiver hitch **MUST** result in a unit that is as strong as in its original configuration. A longer ball mount must be purchased or fabricated from a 2" x 2" flat bar. Check for clearance; This way the bed cannot be inadvertently raised and damaged by the ball mount.

Alternate options:

- Leave receiver hitch in the original location. Remove the OEM bumper.
- Leave receiver hitch in the original location. Remove the OEM bumper. Fabricate a 1/3 length bumper for the left and right, attach to the hinge arms. The center 1/3 is open to clear the receiver hitch.
- Leave the receiver hitch in the original location. Remove the OEM bumper.

Install a 2" x 4" rectangular tube just above the receiver hitch and weld it to the frame. It will be a stationary bumper. The 2" dimension is up/down, the 4" dimension is left/right. This choice results in the strongest bumper system and does not interfere with any towing function.

## TROUBLESHOOTING

### **BED WILL NOT LIFT:**

- First, check your voltage at the pump. Make sure that there is 12V at the solenoid terminal. Operate the pump and check the voltage again. Power should stay near 12V, but should not drop below 12V. If this is not achieved, check all wiring and all connections.
- On Power down pumps, make sure that the pump is plumbed properly. The PM-3551 pump has two hydraulic ports. The port labeled C1 should be plumbed to the base end of the cylinder. The port labeled C2 should be plumbed to the rod end of the cylinder. (See Page 15 and 16).

### **PUMP IS SLOW:**

- First, check your voltage at the pump. Make sure that there is 12V at the solenoid terminal. Operate the pump and check the voltage again. Power should stay near 12V, but should not drop below 12V. If this is not achieved, check all wiring and all connections.
- Check suction tube filter for blockage (refer to maintenance).

### **LEAKS:**

- Upon installation, there may be a bit of fluid seeping from the cylinder vent. This is not a leak, but merely residual fluid from pressure testing the cylinder.
- If fluid is leaking from any fittings or hose, simply tighten the fitting. **DO NOT** use pipe thread sealant tape on any fittings. Only use pipe thread sealant paste. Tape can break loose and cause blockages in the hydraulic system.

### **CALL PIERCE:**

- In the event you need any assistance please call 800-658-6301.

Pierce Arrow Inc. warrants that the goods, equipment, and merchandise manufactured by Pierce Arrow Inc. are free from defects in material and workmanship. The limited warranty includes replacement or repair of defective mechanical and electrical parts for a period of two years from the date of shipment by Pierce Arrow Inc.

## **OBTAINING WARRANTY SERVICE**

Pierce Arrow Inc. must be notified of any defect before repair or replacement may be granted. The merchandise must be delivered by the purchaser to Pierce Arrow Inc. in Henrietta, Texas at the purchaser's expense. Any repairs not made by Pierce Arrow Inc. are not covered by the limited warranty and are the responsibility of the purchaser.

Pierce Arrow Inc. Reserves the right to repair or replace defective parts or products in its sole discretion. The cost of any repairs not covered by the warranty will be charged to the purchaser.

## **EXCLUSIONS**

All PIERCE products are manufactured for a specific intended purpose. The Pierce Arrow Inc. limited warranty does not cover, and Pierce Arrow Inc. is not liable for, damage arising from any use other than the specific intended use of each product.

The Pierce Arrow Inc. limited warranty does not cover:

- Ongoing maintenance parts or repair due to normal wear and tear.
- Any change or defect due to accident, misuse or any use for which the equipment was not intended, improper or unauthorized repair, failure to provide regular maintenance, and deterioration due to weather or road conditions.

Purchasers should consult their owner's manual for safety, installation, operation, and maintenance guidelines.

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## **OTHER MANUFACTURERS' WARRANTIES**

Pierce Arrow Inc. makes no warranty, expressed or implied, to finished products manufactured or supplied by other manufacturers, and sold by Pierce Arrow Inc. to the purchaser, including but not limited to, any vehicle to which our product is affixed and any accessories. Such merchandise is subject to the manufacturer's warranty only, which will be provided upon request.

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**DAMAGED GOODS:** Pierce Arrow Inc. is not responsible for, and has no liability for:

- Damage arising during shipment
- Any change or defect due to accident, misuse or any use for which the equipment was not intended, improper or unauthorized repair, failure to provide regular maintenance, and deterioration due to weather or road conditions.

**CLAIMS:** Claims for breakage or damages during shipping must be made to the carrier at the time of delivery. If a signature is required, you must notify the driver and sign that there was damage. You must notify Pierce Arrow Inc. of the damage promptly so that a claim can be filed.



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549 US Highway 287 South	Local: (940) 538-5643
Henrietta, Texas 76365	Fax: (940) 538-4382

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Contact us – call, email, fax, telegraph, morse code.  
Our sales team and technical service reps are ready and here to help you.

Open Monday – Friday 8 a.m. – 5 p.m. CST.

### SHIPPING INFORMATION

All orders placed over the weekend will ship the following Monday unless it's a holiday.  
Orders placed during holidays will ship when we return for work.