Front driveshaft needs extended 1.5"

This kit requires a small amount of welding. Electronics protection is recommended



AIR SUSPENSION SYSTEMS

D4F4-3-X-13-10

A 90 degree drill is required

NOTE: This kit requires 1/4-20" and 1/2-20" taps

2013+ Ram Front 8-10" Lift Kit Installation Instructions



1. Jack the truck up by the front axle and place jack stands under the front of the frame just behind the radiator. Remove the wheels. Next remove the shocks. Let the jack down so the tension is off the coil springs. Remove the coil springs. Next, unhook the sway bar end links. Since we will be welding on the chassis, disconnect all the battery cables.



2. Place a jack under



the transmission. Use a block to distribute the weight over the entire transmission pan. Remove the 3 nuts from the transmission mount where it fastens to the cross member. Remove the 4 bolts that hold the transmission cross member in place. Remove the cross member. Now remove the 2 bolts that fasten the control arms to the frame. Keep the nuts for the transmission mount. Now locate the cross member (part# 18299). It fastens into the factory cross member holes with the four 5/8x 8" bolts. Do not torque until step 6. Insert the bolts going from the back of the truck forward. Once these cross member bolts are installed fasten the transmission to the cross member with the factory nuts. Torque the transmission nuts to 45 ft/lb 6. Locate the four front trailing arms.

The upper trailing arms (shorter ones) fasten into the cross member (upper mount)



M18x150 bolts. Set these bars so the distance be-

3. Now that the cross member is installed, its time to index the transfer case. The 3500 has 2 different tranny options. The Aisin R-86 is an 8 bolt unit and the standard 68RFE is 6 bolt. The 2500 uses the R-86 only. Remove the transfer case and lay it on the ground outside the truck.



68RFE Pictured (6 bolt)



4. With the transfer case removed, locate the seal adaptor that fits in your transmission. Remove the factory seal from the transmission. There are 4 different seal adaptors for the Dodge trucks. Three for the 6 bolt and 1 for the 8 bolt. Once you figure out which seal adaptor fits your transmission, press the supplied new seal in it. Then place it in to a freezer. Once the seal adaptor has had about 30 minutes to shrink a few thousandths in the freezer, remove it and place it in the back of the transmission.



Seal adaptor installed with new seal

8 bolt indexing ring and seal adaptor Aisin R-86

6 bolt indexing ring and 3 different seal adaptors for manual and automatic transmissions



5. If you are using the 6 bolt indexing ring put the studs in the middle of the three threaded holes. If you are using the 8 bolt indexing ring use the second hole (furthest away from the countersunk hole going counter clockwise). Use Loctite on the studs. Tighten them until the treads bottom out. Now remove the studs on the transfer case. Place the indexing ring on the transfer case. Turn it until all 6 or 8 bolts line up with the holes. Using Loctite fasten the M10-30 metric cap head bolts to 25 ft/lbs.

6. Reinstall the transfer case onto the rear of the transmission. Use the supplied 3/8" nuts on the studs and torque to 35 ft/lbs.





tween the knuckles (NOT between the jam nuts) at 23 1/4". **NOTE: The passenger side gets the 3/8" machined spacer on the outside upper bolt.** The axle end of the trailing arms fasten with the m18 x 130 bolts. The lower trailing arms fasten into the cross member with the 7/8x6" bolts and fasten to the axle with the m18 x 130. Set the distance on these bars to 25 1/8" between the knuckles (NOT the distance between the jam nuts). Snug the bolts up for now. You will torque the 7/8" bolts to 275 ft/lbs and the m18 bolts to 200 ft/lbs in step 18. These measurements will get your axle pretty close to original pinion angle. Some fine tuning may still need to be done once the air bags are mounted and final ride height is programmed in with the control system. **NOTE: When fine tuning move each bar half a turn on each side at a time. Failure to do so will result in the arms binding.**









7. Place a reference mark on the ball joint threads where the jam nut sits on the steering linkage. Next remove the steering linkage from the factory pitman arm. Remove the factory pitman arm. It will not be reused. Unthread the tie rod completely from the steering linkage. The tie rod end as a machined "leg" on it. This needs to be cut off due to the tie rod being installed 180 degrees opposite of the factory.

8. Now remove the bolt that holds the pan hard bar from the pan hard bar mount. Locate the pan hard bar drop (part# 18307) and use the factory bolt to connect it to the factory pan hard bar mount. The other end gets welded to the factory cross member. Just set it in place now and mark on the frame where you will have to weld. Remove the bracket and grind the area where the welding is to take place. Now reinstall the bracket and torque the factory bolt to 135 ft/lbs, making sure the area to be welded it tight against the frame. Weld the pan hard bar drop to the cross member. Weld the entire tab length.

Weld here

Keep the welder handy because it is needed in step 12.





9. Locate the dropped pitman arm (part# 4011). It installs with the factory nut and lock washer. Torque to 250 ft/lbs. **NOTE: Re-torque after 25 miles.** Next reinstall the tie rod end off the steering rod. You will want the axle hubs straight and the steering wheel straight. Use the reference mark in step 7 to help get the correct placement of the ball joint. Once you get the tie rod where you want it inert it bottom up into the pitman arm and torque the nut to 95 ft/lbs. Use the mark you put on the threads earlier. After your test drive the steering wheel can be adjusted straight with the steering rod end.



Pittman arm and steering rod end in position before tightening.

NOTE: There are three different passenger lower bag mounts provided. Use the one that sits parallel with the ground when placed on the spring bucket!

10. Locate the lower air bag mounts (part# 18275 DS and 18286 PS). Now find the holes in the bottom of the spring bucket. The hole towards the rear of the truck will be tapped to 1/2-20". Once that hole is tapped, drop the lower bag mount in fasten with the 1/2x1" bolt. Next drill a 13/32" hole into the raised center portion of the bucket. Once this is done insert the 3/8x1 1/2" bolt and torque both bolts to 35 ft/lbs.



Tap this hole to 1/2-20"

Passenger side



Tap the rear hole on the passenger side and the front hole on the drivers side!

Choose the lower bag mount that fits parallel with the ground. 3 choices are provided

Drill out this hole for a 3/8"



11. Locate the upper bag mounts (part# 18276 DS and 18284 PS). There are 2 holes in the upper coil spring bucket, and 3 in the upper bag mounts. The rear hole is big enough for a 3/8" bolt. Hold the upper bag mount in place, line up the rear hole and mark the other 2 holes. Pull the upper bag mount, center punch the mark and drill the 2 holes to 13/32" Now that the holes are drilled, fasten the upper bag mount in place with the three 3/8x 1 1/2" bolts. Torque them to 35 ft/lbs.



12. Locate the weld in brace for the spring bucket. The passenger side has one welded in from the factory, but the drivers side doesn't. Place the brace on the spring bucket and mark where you will be welding. Next use a grinder to remove the paint on the spring bucket. Wrap up the upper bag mount and then weld the brace in place. Make sure the person doing the welding is a certified welder.



13. Next locate the 8979 (part# 8979-1) air bags. Fasten them into the upper and lower air bag mounts. Use the 3/4" and 1/2" nuts and lock washers on the top and the 1/2x3 1/2" bolt on the bottom (with flat washer and lock washer). Tighten all the nuts and bolt to 35 ft/lbs. Next locate the air fitting and install into the air port on top of the bag. Tighten finger tight then one complete turn after with the correct size of wrench.







Make sure the knuckles have the gussets towards each other





14. Locate the shocks (part# 985-24-010) and lower shock mounts (part# 18378). Fasten the lower end of the shock into the shock mount with the 9/16x5 1/2" bolt and slide the round end of the mount in the factory shock location on the axle. Torque this bolt to 125 ft/lbs. Next locate the rubber bushings and steel cups. Place a cup (dish

side up) on the shock and then slide a bushing (large ring up) over the shock and slide into the factory shock mount. Now go to page 20 to see the picture on how to route the factory brake lines.





15. Now place a bushing over the shock shaft so the large ring is down. Next put the washer dish down. Thread on the lock nut until it bottoms out.

Large ring goes into factory shock mounting hole

Small ring goes towards the steel dished washer



16. Locate the sway bar drops (part# 18339). Fasten in place with the factory bolts on the top and fasten the sway bar to the sway bar drop with the 7/16 x 1 1/2" bolts. Torque to 50 ft/lbs.



17. Locate the sensor, collar with ball stud, and linkage. You will drill and tap the side of the frame just under the cab mount for the sensor. The sensor arm faces the rear of the truck. Make sure you have enough room for the wiring harness to clear when choosing the sensor spot. It's a tight area and a 90 degree drill is required. Use a 7/32" drill bit to drill the holes and then tap for the 1/4-20" bolts. Now attach the collar with the ball stud. The linkage should be straight up and down.



Make sure the wire harness has room to attach

Drivers side pictured with no air in air bags Accu air sensors

NOTE: The Accu air sensors have a dead band in the last 5-10% off their range. If the arm is touching the plastic stop, no sensor reading is given and the control system will not operate correctly. Make sure that there is at least 1/8" gap between the plastic stop when the unit is without air. Shorten the linkage to do this. To shorten the linkage remove the female end, nut and plastic cover. Cut the threaded rod and plastic cover. Then reassemble.



18. Pictured on this page are the Hadley sensors. They mount to the side of the frame just behind the shock. They will be mounted at an angle so the arm has more up travel. You will need to cut some of the inner fender out for additional travel. When all the air is deflated, make sure the arm isn't hitting anything. Use a 7/32 drill bit to drill the holes and tap the frame for the 1/4-20 bolts.

The linkages are 10 1/2" long and the collar goes 4 1/2" away from the end of the knuckle (not the end of the jam nut)

Cut the inner fender for clearance



18. When programing the control system, the front air bag needs to run at a ride height of 11 1/2-12 1/2." When measuring the air bag measure between the mounting brackets.

19. Go through and torque all the bolts. Once the truck has 300 miles on it re-torque all the bolts. Check the bolts at regular service (oil change) intervals after that.







L	PROPRIETARY AND CONFIDENTIAL	SIZE	DWG NO
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF	A	D4F4-3-X-13-10

ITEM NO.	PART NUMBER	DESCRIPTION	Exploded/QTY.
1	18284	(PS) Front Upper Bag Mount	1
2	18286	(PS) Lower Bag Mount	1
3	18276	(DS) Front Upper Bag Mount	1
4	18275	(DS) Front Lower Bag Mount	1
5	18307	(PHB) Drop Mount	1
6	18299	Transmission Crossmember	1
7	10580	BAG KIT - 8979	2
8	18314	Sway Bar Mount	2
9	18490	Trailing Arm 28.5	2
10	18492	Trailing Arm 27	2
11	18378	Shock Mounting Bracket	2
12	18401	Steering Stabilizer	1



G5 RAM 2500/3500 Steering Stabilizer Kit Instructions



- 1. Remove the OEM steering stabilizer shock and the mounting hardware on the center of the axle.
- Remove the factory mounting brackets from the passengers side. Locate the new bracket (part# 18400) and install it so the holes are on the front side of the axle like in the picture below. Use the factory bolts and toque to 55 ft/lbs.





3. Locate the drivers side bracket (part# 18839 and 18397) If fastens to the two factory pinch bolts on the steering arm. It also fastens to the outter tie rod end with the 1/2x3" bolts. Torque these bolts to 55 ft/lbs. Make sure the 1/2" bolt is pointing towards the rear of the truck.

NOTE: Some models of dodge truck have only one bolt on the steering link instead of 2. Use part # 18409 instead of 18839.





4. Locate the steering stabilizer bracket (part# 19393), top spacer (part# 18396) and the side spacer (part# 18399). Use the M10x45 bolts to fasten the center top of the bracket to the axle. (just start all the bolts and tighten after all six bolts are installed) Make sure to use the spacer, (part#18396) between the bracket and axle. The bottom of the bracket fastens to the axle with the factory bolts. Next if the factory differential cover is being used, use spacer (part# 18399) in between the bracket and diff cover. Use the M8x40 bolts in this spot. If you have an aftermarket diff cover, you should not need the spacer. Once all the bolts are started, tighten the OEM bolts on the bottom of the axle to 35 ft/lbs, the M45 bolts to 55 ft/lbs and the m8 bolts to 30 ft/lbs.





5. Locate the shocks. (Fox part# 985-24-068). Use the 1/2x3" bolts on the outside to fasten the shock to the outter mounts. Next locate the shock strap (part# 18402 and two 1/2x3" bolts. Fasten the shocks to the steering stabilizer bracket. Make sure to put the bolts in top down. Once all the bolts are in place, go back and torque the bolts to 75 ft/lbs.





	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
	ì	18389	(DS) Shock Bracket	1
	2	18393	Steering Stabilizer Bracket	1
	3	18396	3/8" Spacer	1
	4	18397	Axle Mounting Bracket w/ Bends	1
	5	18399	3/8" & 1/2" Spacer	1
\bigcirc	6	18400	(PS) Shock Mount	1
	7	985-24-068	Fox Shock - 985-24-068	2
	8	18402	"K" Shock Strap	1
	2 1 UNLESS OTHERWISE SPECIFIED: Design	4 By: Zach Beltz 201-)	
8	DIMENSIONS ARE IN INCHES TOLERANCES: Shelf # /	Qty	2013 Dodge G5 2500/3500 Front Kits	
	ANGULAR: MACH: 1 BEND: 1 Invent TWO PLACE DECIMAL: 030 RUN Q	ory ty:	Steering Stabilizer	
	THREE PLACE DECIMAL ±.010			

Front driveshaft needs extended 1.5"

This kit requires a small amount of welding.

Electronics protection is Recommended.



AIR SUSPENSION SYSTEMS

D4F4-3-X-13-10

90 degree drill required.

NOTE: This kit requires 1/4-20" and 1/2-20" taps.

VERSION 1.1

2013+ Ram 2500/3500 Front 8-10" Lift Kit Installation Instructions



- 1. Jack the truck up by the front axle and place jack stands under the front of the frame just behind the radiator and remove the wheels. Remove the shocks. Let the jack down so the tension is off the coil springs and remove them. Unhook the sway bar end links. We will be welding on the chassis, so disconnect all the battery cables.
- 2. Place a jack under the transmission. Use a block to distribute the weight over the entire transmission pan. Remove the 3 nuts from the transmission mount where it fastens to the cross member and remove the 4 bolts that hold the transmission cross member in place. Remove the cross member.



3. Remove the 2 bolts that fasten the control arms to the frame. Keep the nuts for the transmission mount. Locate the cross member (part# 18299). It fastens into the factory cross member holes with the four 5/8x 8" bolts. Do not torque until step 6. Insert the bolts going from the back of the truck forward. Once these cross member bolts are installed fasten the transmission to the cross member with the factory nuts. Torque the transmission nuts to 45 ft./lbs.

- 4. Locate the four front trailing arms. The upper trailing arms (the shorter ones) fasten into the cross member (upper mount) with M18x150 bolts. Set these bars so the distance between the knuckles (NOT between the jam nuts) at 23 1/4". NOTE: The passenger side gets the 3/8" machined spacer on the outside upper bolt. The axle end of the trailing arms fasten with the M18 x 130 bolts. The lower trailing arms fasten into the cross member with the 7/8x6" bolts and fasten to the axle with the M18 x 130.
- 5. Set the distance on these bars to 25 1/8" between the knuckles (NOT the distance between the jam nuts). Snug the bolts up for now. You will torgue the 7/8" bolts to 275 ft./lbs. and the M18 bolts to 200 ft./lbs. in step 18. These measurements will get your axle close to original pinion angle. Some fine tuning may still need to be done once the air bags are mounted and final ride height is programmed in with the control system. NOTE: When fine tuning, move each bar half a turn on each side at a time. Failure to do so will result in the arms binding.



the gussets facing each other, as shown in the photo.

3. With the cross member installed, it is time to index the transfer case. The Ram 3500 has 2 different transmission options. The Aisin R-86 is an 8 bolt unit and the standard 68RFE is 6 bolt. The 2500 uses the 68RFE only. Remove the transfer case and lay it on the ground outside the truck.



68RFE Pictured (6 bolt)



4. With the transfer case removed, locate the seal adaptor that fits in your transmission. Remove the factory seal from the transmission. There are 4 different seal adaptors for the Ram trucks. Three for the 6 bolt and one for the 8 bolt. Once you determine which seal adaptor fits your transmission, press the supplied new seal in it and place it in to a freezer. Once the seal adaptor has had about 30 minutes to shrink a few thousandths in the freezer, remove it and place it in the back of the transmission.



Seal adaptor installed with new seal

8 bolt indexing ring and seal adaptor Aisin R-86

6 bolt indexing ring and 3 different seal adaptors for manual and automatic transmissions



5. If you are using the 6 bolt indexing ring, put the studs in the middle of the three threaded holes. If you are using the 8 bolt indexing ring, use the second hole (furthest away from the countersunk hole going counter clockwise). Use Loctite on the studs. Tighten them until the treads bottom out. Remove the studs on the transfer case. Place the indexing ring on the transfer case. Turn it until all 6 or 8 bolts line up with the holes. Using Loctite fasten the M10-30 metric cap head bolts to 25 ft./lbs.

6. Reinstall the transfer case onto the rear of the transmission. Use the supplied 3/8" nuts on the studs and torque to 35 ft./lbs.





Cut steering linkage



- 7. Place a reference mark on the ball joint threads where the jam nut sits on the steering linkage. Remove the steering linkage from the factory pitman arm. Remove the factory pitman arm. It will NOT be reused. Unthread the tie rod completely from the steering linkage. The tie rod end has a machined "leg" on it. This needs to be cut off due to the tie rod being installed 180 degrees opposite of the factory.
- 8. Remove the bolt that holds the pan hard bar from the pan hard bar mount. Locate the pan hard bar drop (part# 18307) and use the factory bolt to connect it to the factory pan hard bar mount. The other end gets welded to the factory cross member. Set it in place now and mark on the frame where you will have to weld. Remove the bracket and grind the area where the welding is to take place. Reinstall the bracket and torque the factory bolt to 135 ft./lbs., making sure the area to be welded it tight against the frame. Weld the pan hard bar drop to the cross member. Weld the entire tab length.

Weld here

Keep the welder handy because it is needed in step 12.





9. Locate the dropped pitman arm (part# 4011). It installs with the factory nut and lock washer. Torque to 250 ft./lbs. **NOTE: Re-torque after 25 miles.** Reinstall the tie rod end off the steering rod. You will want the axle hubs straight and the steering wheel straight. Use the reference mark in step 7 to help get the correct placement of the ball joint. Once you get the tie rod where you want it inert it bottom up into the pitman arm and torque the nut to 95 ft./lbs. Use the mark you put on the threads earlier. After your test drive the steering wheel can be adjusted straight with the steering rod end.



Pittman arm and steering rod end in position before tightening.

NOTE: There are three different passenger lower bag mounts provided. Use the one that sits parallel with the ground when placed on the spring bucket!

10. Locate the lower air bag mounts (part # 18275DS and 18286PS). Find the holes in the bottom of the spring bucket. The hole towards the rear of the truck will be tapped to 1/2-20". Once that hole is tapped, drop the lower bag mount in fasten with the 1/2x1" bolt. Drill a 13/32" hole into the raised center portion of the bucket. Once this is done insert the 3/8x1 1/2" bolt and torque both bolts to 35 ft./lbs.



Tap this hole to 1/2-20"

Passenger side shown



Tap the rear hole on the passenger side and the front hole on the drivers side!

Choose the lower bag mount that fits parallel with the ground. 3 choices are provided.

Drill out this hole for a 3/8"



11. Locate the upper bag mounts (part # 18276DS and 18284PS). There are 2 holes in the upper coil spring bucket, and 3 in the upper bag mounts. The rear hole is big enough for a 3/8" bolt. Hold the upper bag mount in place, line up the rear hole and mark the other 2 holes. Pull the upper bag mount, center punch the mark and drill the 2 holes to 13/32" Once the holes are drilled, fasten the upper bag mount in place with the three 3/8x 1 1/2" bolts. Torque them to 35 ft./lbs.



12. Locate the weld in brace for the spring bucket. The passenger side has one welded in from the factory, but the drivers side does not. Place the brace on the spring bucket and mark where you will be welding. Use a grinder to remove the paint on the spring bucket. Wrap up the upper bag mount and then weld the brace in place. Make sure the person doing the welding is a certified welder. 13. Locate the 8979 (part# 8979-1) air bags. Fasten them into the upper and lower air bag mounts. Use the 3/4" and 1/2" nuts and lock washers on the top and the 1/2x3 1/2" bolt on the bottom (with flat washer & lock washer).

Tighten all the nuts and bolt to 35 ft./lbs. Locate the air fitting and install into the air port on top of the bag. Tighten finger tight then one complete turn after with the correct size of wrench.





Lower shock mount shown below. Shock installation is discussed on the following





14. Locate the shocks (part# 985-24-010) and lower shock mounts (part # 18378). Fasten the lower end of the shock into the lower shock mount with the $9/16 \ge 1/2$ " bolt and slide the round end of the mount in the factory shock location on the axle. Torque this bolt to 125 ft./lbs. Locate the rubber bushings and steel cups. Place the

cup (dish side up) on the shock and then slide the bushing (large ring up) over the shock and slide into the factory shock mount. More photos are available on the following page.

Page 18 will illustrate how to route the factory brake lines.





15. Now place a bushing over the shock shaft so the large ring is down. Next put the washer dish down. Thread on the lock nut until it bottoms out.

Large ring goes into factory shock mounting hole

Small ring goes towards the steel dished washer



16. Locate the sway bar drops (part# 18339). Fasten in place with the factory bolts on the top and fasten the sway bar to the sway bar drop with the 7/16 x 1 1/2" bolts. Torque to 50 ft./lbs.



17. Locate the sensor, collar with ball stud, and linkage. You will drill and tap the side of the frame just under the cab mount for the sensor. The sensor arm faces the rear of the truck. Make sure you have enough room for the wiring harness to clear when choosing the sensor spot. t's a tight area and a 90 degree drill is required. Use a 7/32" drill bit to drill the holes and then tap for the 1/4-20" bolts. Attach the collar with the ball stud. The linkage should be straight up and down.

Make sure the wire harness has room to attach to the sensor



Drivers side pictured with no air in air bags and AccuAir sensors

NOTE: The AccuAir sensors have a dead band in the last 5-10% off their range. If the arm is touching the plastic stop, no sensor reading is given and the control system will not operate correctly. Make sure that there is at least 1/8" gap between the plastic stop when the unit is without air. Shorten the linkage to do this. To shorten the linkage remove the female end, nut and plastic cover. Cut the threaded rod and plastic cover, then reassemble.



- 18. Pictured on this page are the Hadley sensors. They mount to the side of the frame just behind the shock. They will be mounted at an angle so the arm has more up travel. You will need to cut some of the inner fender out for additional travel. When all the air is deflated, make sure the arm isn't hitting anything. Use a 7/32" drill bit to drill the holes and tap the frame 1/4-20 bolts. for the
- 19. The linkages are 10 1/2" long and the collar goes 4 1/2" away from the end of the knuckle (not the end of the jam nut)

Cut the inner fender for clearance



18. When programing the control system, the front air bag needs to run at a ride height of 11 1/2-12 1/2." When measuring the air bag, measure between the mounting brackets.

19. Go through and torque all the bolts. Once the truck has 300 miles on it, re-torque all the bolts. Check the bolts at regular service (oil change) intervals after that.







ITEM NO.	PART NUMBER	DESCRIPTION	Exploded/QTY
1	18284	(PS) Front Upper Bag Mount	1
2	18286	(PS) Lower Bag Mount	1
3	18276	(DS) Front Upper Bag Mount	1
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10	18492	Trailing Arm 27	2
11	18378	Shock Mounting Bracket	2
12	18401	Steering Stabilizer	1