

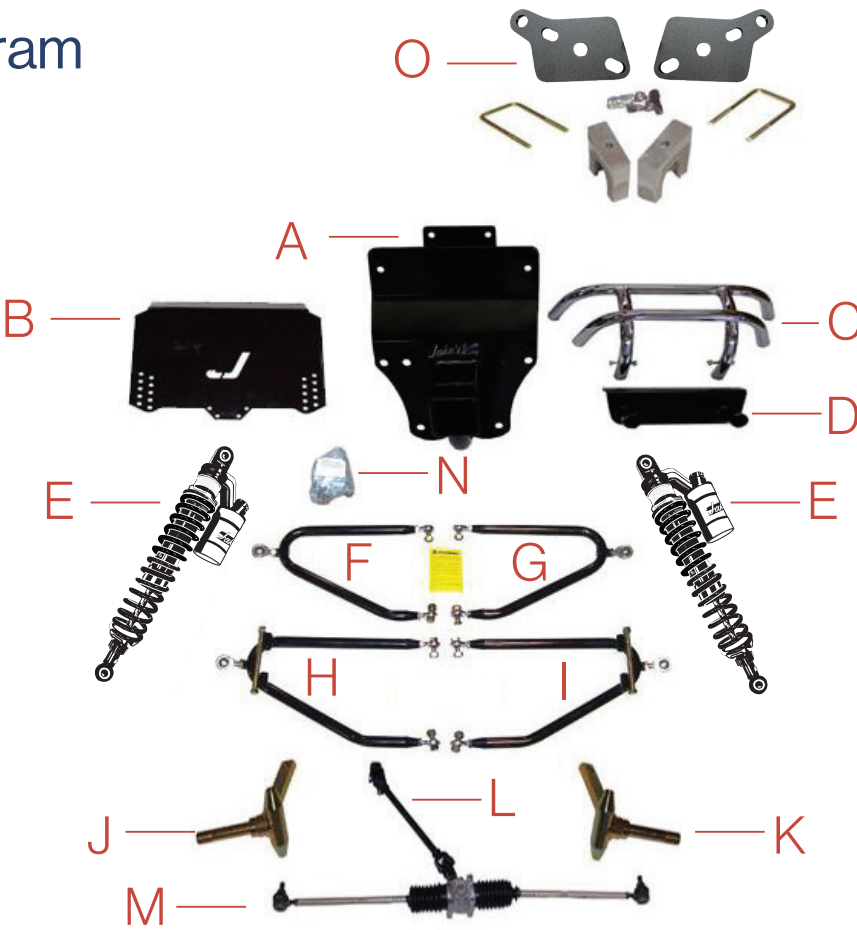


INSTALLATION INSTRUCTIONS

Part #16-787

Long Travel Lift Kit for
Club Car DS 1996.5-2004.5 Gas

Parts Diagram



CALLOUT	ITEM	QTY
A	JAKE'S SUB-FRAME	1
B	TOP SHOCK MOUNT PLATE	1
C	STAINLESS BUMPER	1
D	BUMPER MOUNT	1
E	JAKE'S LONG TRAVEL SHOCKS WITH EXTERNAL RESERVOIR	2
F	PASSENGER SIDE TOP A-ARM	1
G	DRIVER SIDE TOP A-ARM	1
H	PASSENGER SIDE BOTTOM A-ARM	1

CALLOUT	ITEM	QTY
I	DRIVER SIDE BOTTOM A-ARM	1
J	PASSENGER SIDE SPINDLE	1
K	DRIVER SIDE SPINDLE	1
L	STEERING EXTENSION	1
M	STEERING BOX	1
N	FRONT HARDWARE KIT	1
O	REAR LIFT KIT	1
P	WARNING LABEL	1



*Always wear appropriate
eye protection!*

Front Assembly

FIGURE 1



- 1 Place the car on jack stands.
- 2 Remove front wheels/tires.
- 3 Remove the front cowl.
- 4 Remove the stock hubs from the car. Save the hubs and hardware for reinstallation.
- 5 Unbolt the bottom sub-frame mounting plate from under the center of the front leaf spring. Remove the four bolts that are holding the sub-frame to the car. Have one or two people hold the front sub-frame assembly and then unbolt the top of the steering extension where it bolts to the steering column. This will allow you to remove the stock front frame assembly from the car as shown in **FIGURE 1**.

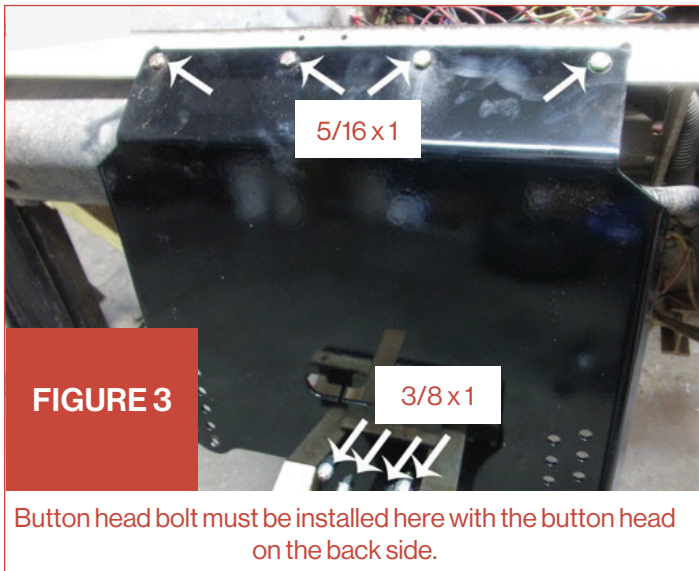
FIGURE 2



- 6 Mount Jake's sub-frame (**ITEM A**) to the stock sub-frame location using the supplied 3/8 x 1 bolts and lock nuts as shown in **FIGURE 2**. (In some cases the stock frame holes may need to be drilled out to 3/8"). Using the stock nuts and bolts mount the sub-frame through the I-beam frame on the driver and passenger side as shown in **FIGURE 2**.

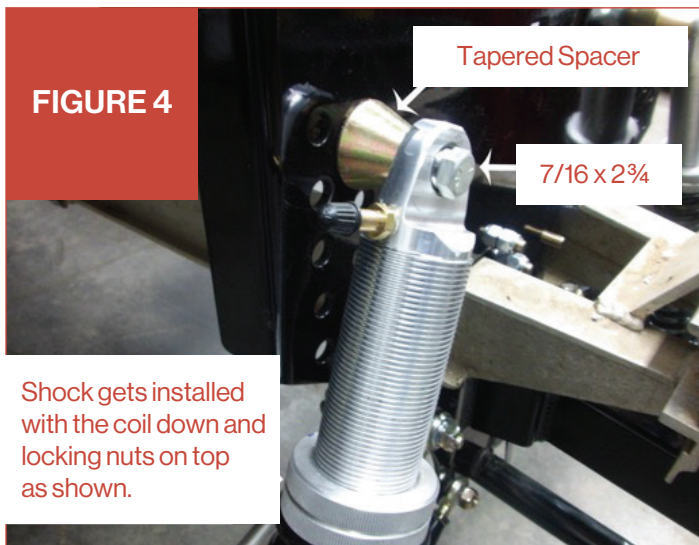
Note: Nuts must go on top of the frame for steering box clearance.

Front Assembly



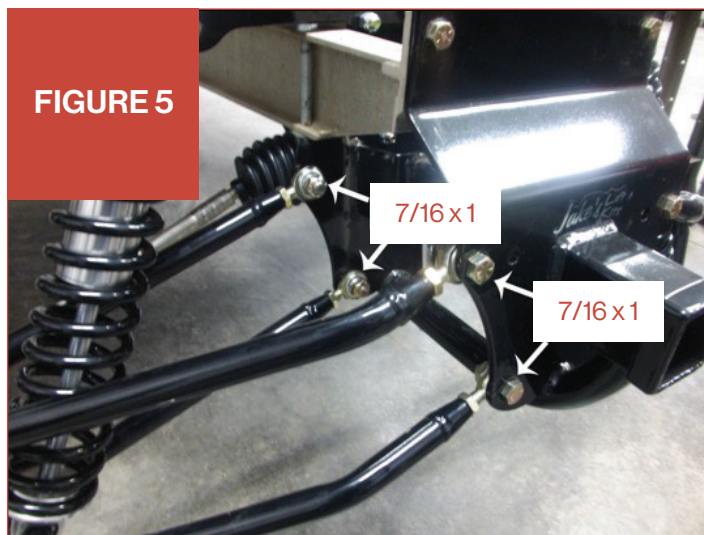
- 7 Line the holes in Jake's top frame support (ITEM B) with the holes on the frame as shown in **FIGURE 3**. **NOTE:** On some models both the center holes will line-up. On other models only 1 center hole will line-up. You will need to drill the remaining 2 or 3 holes 5/16" to mount the top frame support to the cart. Bolt the top frame support to the top four holes using the supplied 5/16 x 1 bolts and locknuts as shown in **FIGURE 3**.
- 8 Mount Jake's top frame support (ITEM B) to the Jake's sub-frame (ITEM A) using the supplied 3/8 x 1 bolts and lock nuts as shown in **FIGURE 3**.

NOTE: All bolts must be inserted from the rear of the cart. The second hole from the right side must have the supplied button inserted from the back side as shown in **FIGURE 3** for steering box clearance.



- 9 Mount Jake's Long Travel Shock with External Reservoir (ITEM E) to the top frame support (ITEM B) with the supplied 7/16 x 2 3/4 bolts, tapered spacers and lock nuts as shown in **FIGURE 4**. **NOTE:** The smaller end of the tapered spacer goes against the shock.

Front Assembly

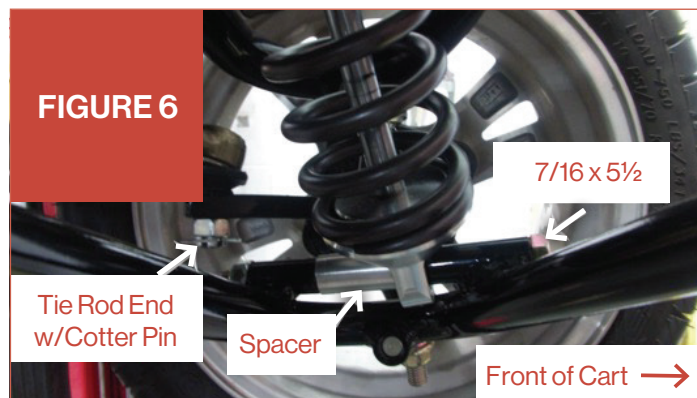


- 10 Mount Jake's bottom A-Arms (ITEMS H & I) to the sub-frame using the 7/16 x 1 bolts and locknuts as shown in FIGURE 5.

NOTE: The A-Arms are side specific. The shock mount tabs on the A-Arms go up, and the straight arm of the A-Arm goes toward the rear of the cart.

- 11 Mount the shocks to the bottom A-Arms using the supplied 7/16 x 5½ bolts, locknuts, and spacer as shown in FIGURE 6.

NOTE: The spacer gets installed behind the shock with the bevel on the spacer against the shock.

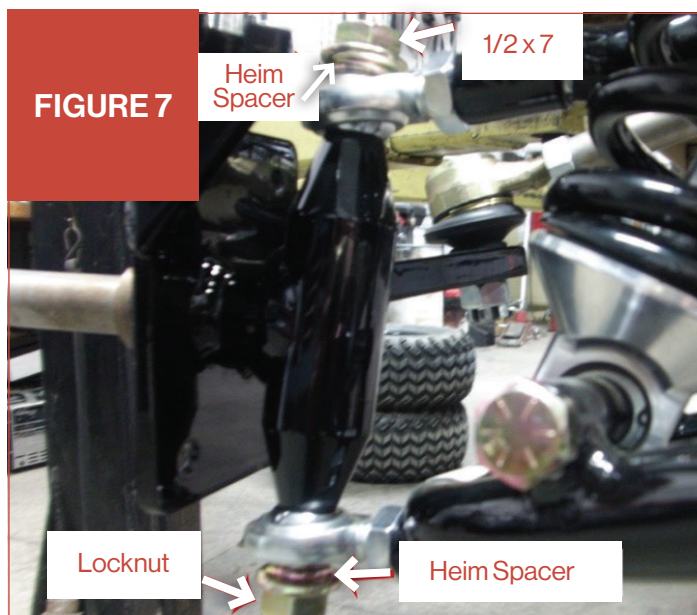


- 12 Mount Jake's top A-Arms (ITEMS F & G) to the subframe using the supplied 7/16 x 1 bolts and lock nuts as shown in FIGURE 5.

NOTE: The a-arms are side specific. The straight tube in the A-Arm goes towards the back of the cart and the bent tube in the A-Arm goes towards the front of the cart.

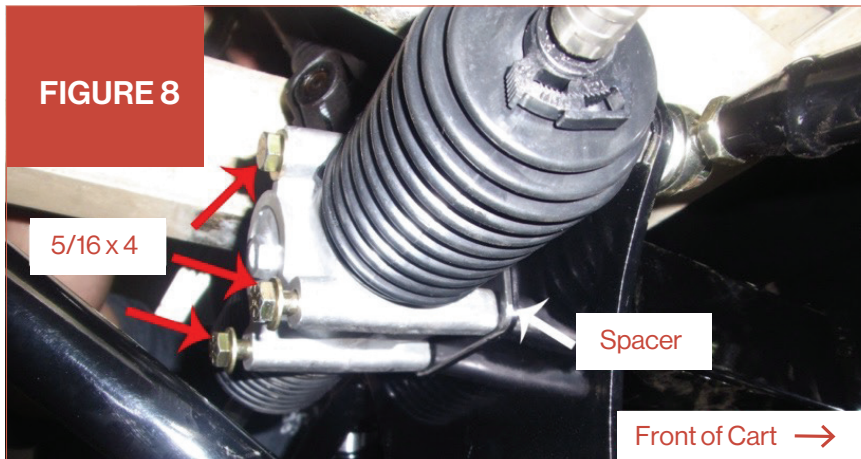
- 13 Attach Jake's spindles (ITEMS J & K) to the A-Arms using the supplied nuts and ½ x 7 bolts, lock nuts, and heim spacers as shown in FIGURE 7.

NOTE: The spindles are side specific. The steering arm on the spindles goes toward the rear of the cart and will angle toward the middle of the cart. The heim spacers go between the bolt head and heim on the top and between the lock nut and heim on the bottom. The bevel on the heim goes to the heim end as shown.



- 14 Mount Jake's steering extension (ITEM L) to Jake's steering box (ITEM M) using the supplied 3/8 x 1¼ bolt and locknut. To center the steering before installing the steering box on the cart turn the steering extension until it reaches it furthest point. Turn the steering extension back the other direction and count 1½ full revolutions. This will center the steering box.

Front Assembly



- 15** Loosely mount Jake's steering extension to the stock steering column using the supplied $\frac{1}{4}$ x $1\frac{1}{2}$ bolt and locknut. Loosely mount Jake's steering box to sub-frame with the supplied 5/16 x 4 bolts, locknuts and spacer. **NOTE:** The spacer will go between the steering box and subframe as shown in **FIGURE 8**.

- 16** Attach the tie rod ends to the spindles as shown in **FIGURE 6 & 7**. Remember to install the cotter pins in the tie rod ends as shown in **FIGURE 6**.

- 17** Install the stock hubs to the spindles using the stock hardware. For 2004.5 & newer DS models with plastic dust covers on the front hubs use the supplied slotted nuts & cotter pins for mounting the hubs to the spindles.

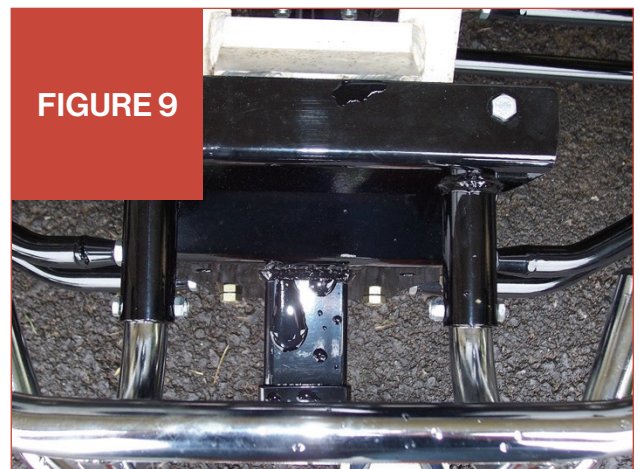
- 18** Install recommended 23x10.5x12 or 22x11x10 wheels/tires (wheels must be offset).

NOTE: Your stock wheels/tires will not work.

- 19** Adjust toe-in. Proper toe-in should be approximately $\frac{1}{8}$ " in.

- 20** Retighten the front body and install the supplied front bumper mount (**ITEM D**) to the stock upper stock bumper holes as shown using the supplied 5/16 x 1 bolts and locknuts. Using the supplied $\frac{1}{4}$ x $1\frac{3}{4}$ bolts and locknuts install the stainless steel front bumper (**ITEM C**) to the front bumper mount as shown in **FIGURE 9**.

- 21** Securely tighten all nuts and bolts.

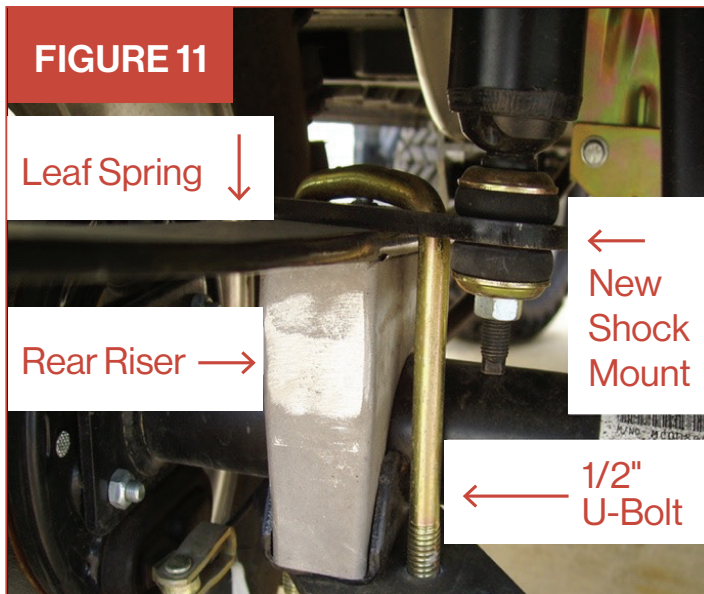


Rear Assembly

FIGURE 10



FIGURE 11



- 1 Jack up the rear end of the cart and place jack stands on the frame in front of the springs. You will be installing larger wheels and tires so raise the cart high enough to accommodate the additional height. Place a car jack under the rear-end housing of the cart.
- 2 Remove the wheels and tires.
- 3 Remove the U-Bolts from the rear axle on both sides of the cart.
- 4 Remove the leaf spring shackle bolts and unhook the bottom of the rear shocks. Clean and lubricate all hardware and save for reinstallation.
- 5 Remove the springs from under the axle on both sides of the cart. Using the car jack lower the rear-end of the cart.
- 6 Place the provided allen cap bolt in the center hole of lower stock brake cable mount plate as shown in **FIGURE 10**. (Allen head up to center plate under rear axle)
- 7 The bottom two holes that the u-bolts go through need to be drilled out to $\frac{1}{2}$ ". The larger u-bolts provide maximum strength. See **FIGURE 11**.

- 8 Place Jake's rear lift mounts (**ITEM Y**) over the axle, with the shortest end pointed towards the front of the cart. Line the axle with the supplied allen cap screw (**ITEM R**).
- 9 Place the springs on the top of the rear lift mounts with the center bolts of the springs in the hole of the rear lift mounts. Using the stock hardware, loosely mount the front of the rear leaf springs to the stock leaf spring mount.
- 10 Place Jake's top rear shock mounting plates (**ITEM X**) over the springs with the shock mounts facing in and to the rear.

Rear Assembly

- 11** Put the U-bolts, through Jake's shock mount plate and through the factory shock mount plate. Using the supplied nuts, tighten the U-bolts. Securely Tighten.
- 12** Using the factory nuts and bolts attach the shocks to the new shock mounts. **NOTE:** *If your rear shocks have an eyelet on use the supplied 7/16 x 1 bolts and nuts to attach the shocks to the new shock mount.*
- 13** Using the stock hardware, bolt the rear of the leaf springs to the rear leaf spring mount. **ONCE REAR IS ALIGNED AND IN PLACE SECURELY TIGHTEN ALL BOLTS.**
- 14** Install Jake's recommended wheel and tire size 23x10.5x12 or 22x11x10 wheels and tires with a 3 x 5" offset for maximum performance. **NOTE: Your stock wheels and tires will NOT work!**
- 15** Included is a warning label (ITEM P) which is to be placed on the steering column or another visible area and is to be read by all operators.





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