

ASSEMBLY INSTRUCTIONS

AcEASE

Kunz Engineering Inc.

Mendota, IL

Electric Lift Kit 003912

1/09

READ THE COMPLETE ASSEMBLY INSTRUCTIONS BEFORE STARTING THE ASSEMBLY.

You should have the following parts with the electric lift kit:

- one actuator assembly
- lift control wiring assembly
- Owner's Manual package

WARNING: Before doing any installations or adjustments, shut off mower engine.

A. REMOVAL OF THE MANUAL CRANK HEIGHT ADJUST ASSEMBLY (Refer to Figure 1.)

If your mower was purchased new with the Electric Lift Kit and the actuator assembly is already mounted to the cross brace tube, refer to Section C.

1. If you have an existing mower with the crank height adjust system, start by lowering the mower down onto a couple blocks of wood.
2. Remove the 1/2" x 1" bolt that is holding the screw mounting flat to the lower deck mount.
3. Remove the 1/2" x 3" and 1/2" x 3-1/2" bolts, nuts and lock washers that are holding the height adjust assembly to the cross brace tube. Save the mounting hardware removed during this step for section B.

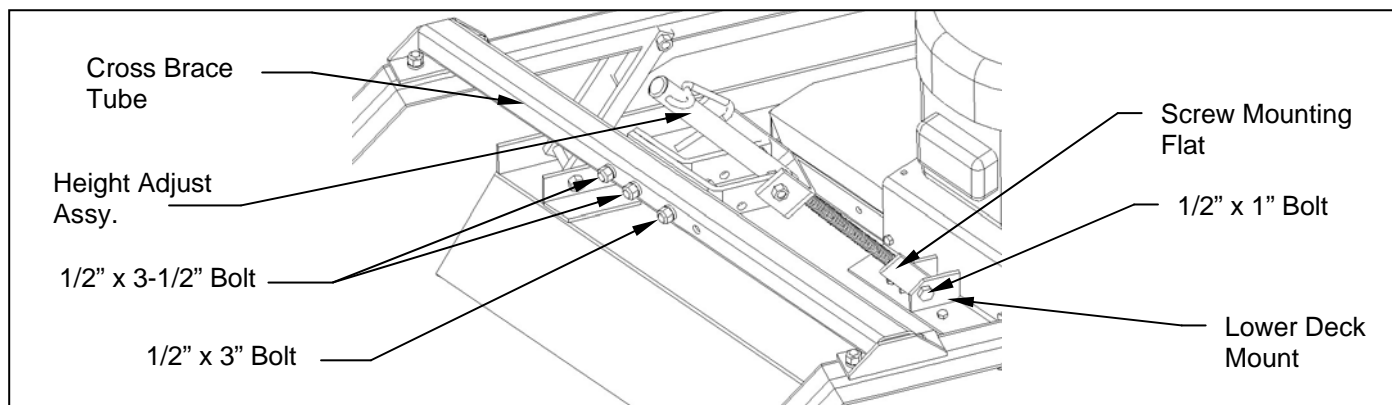


Figure 1: Manual Crank Height Adjust Assembly Removal

B. INSTALLATION OF THE ACTUATOR ASSEMBLY (Refer to Figure 2.)

1. Remove the 1/2" x 2-1/2" bolt and lock nut from the lower mounting hole on the actuator cylinder. Save the hardware for step 3.
2. Using the 1/2" x 3" and 1/2" x 3-1/2" bolts, nuts and lock washers removed in the previous section, secure the actuator assembly to the cross brace tube as shown in figure 2.

3. Attach the battery clips on the lift control wiring assembly to the appropriate terminals on a battery (red attaches to the positive terminal and black to the negative terminal). Stand back and activate the appropriate “down” switch until the actuator cylinder hole aligns with the lower deck mount. After achieving alignment, attach the actuator cylinder with the 1/2” x 2-1/2” hex head bolt and secure the bolt with the provided lock nut.



WARNING: Stand clear of the mower when operating the actuator. Do not attempt to align the actuator cylinder with the lower deck mount while operating the actuator switch. Severe bodily injuries can occur at various pinch points.

Note: The actuator can develop 1500 lbs of force. Watch to make sure that when the actuator cylinder is being lowered for alignment that it does not come in contact with the engine or other items that could be potentially damaged.

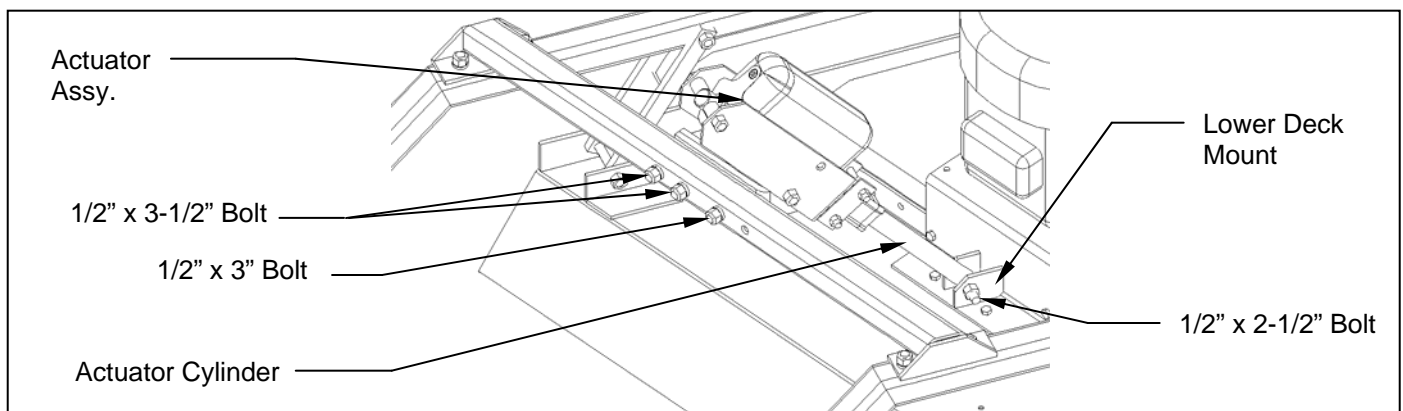


Figure 2. Actuator Assembly Installation

C. INSTALLATION OF CROSS BRACE TUBES AND ACTUATOR

This section is only for new models that were purchased with the Electric Lift Kit and the actuator assembly is already installed on the cross brace tube.

1. Install the upper actuator supports on the carrier arms with the provided 1/2” x 3” hex head bolts, lock washers and nuts. Only hand tighten the hardware for this step. The support that has the electric linear actuator fastened to it needs to be placed on the rear location. Orientate the support such that the actuator hangs towards the engine. **See figure 3.**
2. Remove the 1/2” x 2-1/2” bolt and lock nut from the lower deck mount. Attach the battery clips on the lift control wiring assembly to the appropriate terminals on a battery (red attaches to the positive terminal and black to the negative terminal). Stand back and activate the appropriate “down” switch until the actuator cylinder hole aligns with the lower deck mount. After achieving alignment, attach the actuator cylinder with the 1/2” x 2-1/2” hex head bolt and secure the bolt with the provided lock nut. **See figure 2.**

Note: The actuator can develop 1500 lbs of force. Watch to make sure that when the actuator cylinder is being lowered for alignment that it does not come in contact with the engine or other items that could be potentially damaged.

3. Stand back and activate the appropriate “up” switch. Raise the mower to its highest position and stop. At this time securely tighten the 1/2” x 3” hex head bolts, lock washers and nuts holding the upper actuator supports in place. This step insures that proper alignment of the carrier arms has been achieved, which will allow the deck to raise and lower level from side to side.

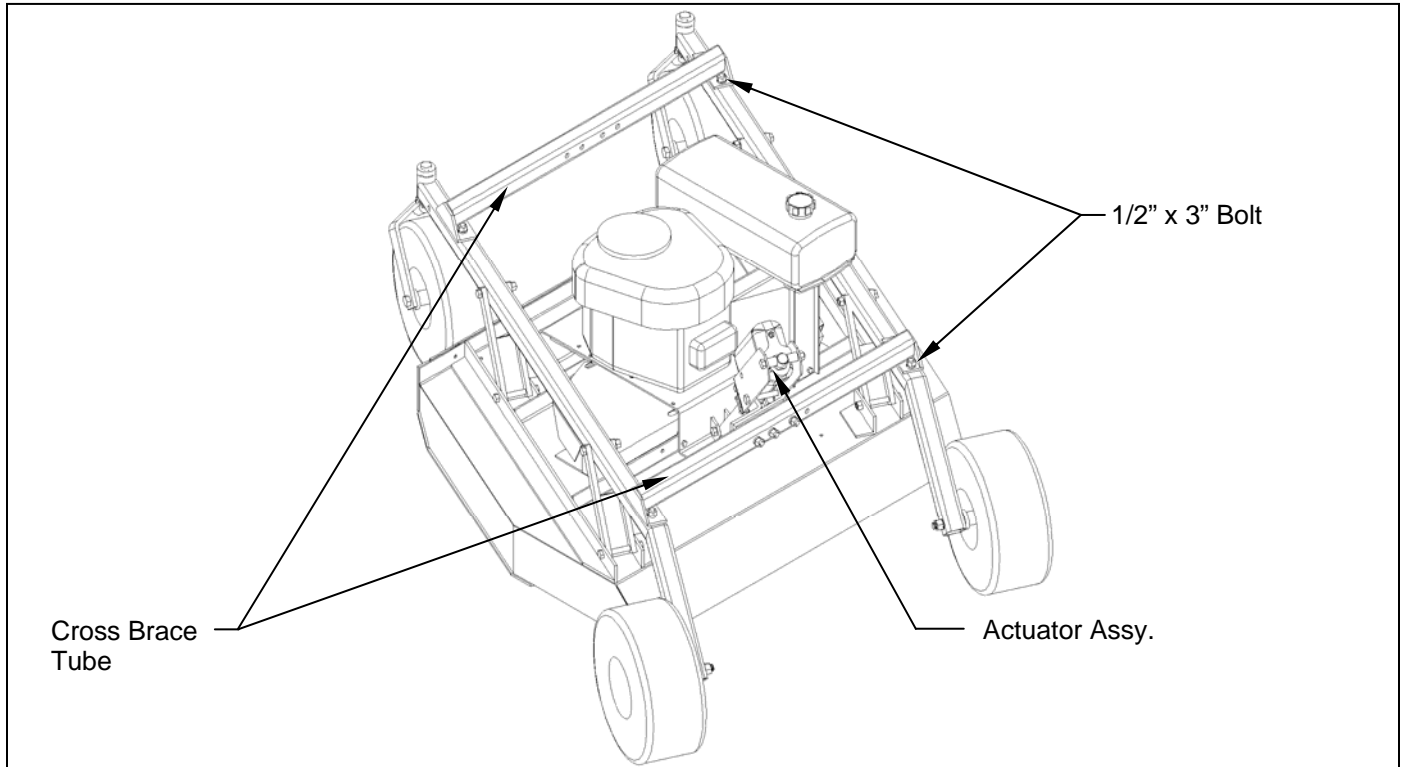


Figure 3. Cross Brace Tube Installation

D. INSTALLATION OF THE LIFT CONTROL WIRING ASSEMBLY

1. Using the provided “U” bolts, securely fasten the lift control panel to the tow vehicle. On most ATVs, the “U” bolts will allow easy installation on the rack.
2. There are two separate electrical cables extending from the lift control panel. There should be a cable that contains battery clips and another cable that has a connector attached to the end. Attach the connector side to the actuator connector. Attach the battery clips to the appropriate terminals on the tow vehicle battery (red attaches to the positive terminal and black to the negative terminal).

Note: Extra electrical cable length can be purchased (**Extension Cable Part #235067**) if needed. In some applications it may be necessary to have extra length to reach the battery or reposition the lift control panel.

3. Securely fasten the electrical cable that extends back to the actuator. Using the provided plastic ties, fasten the cable to the upper actuator support, carrier arms and tongue. Excess cord should be left at the point of the tongue and hitch pivot to allow for tongue adjustments. Position the disconnect plug such that it can be easily disconnected when the mower is removed from the rear of the tow vehicle.

ELECTRIC LIFT KIT PARTS LIST

<u>Item</u>	<u>Part #</u>	<u>Description</u>	<u>Quantity</u>
1	235061	Six Contact Socket Connector	1
2	235063	Battery Wiring Harness	1
3	235065	Wiring Harness	1
4	235066	Battery Clip Harness	1
5	235067	Extension Cable	1
6	235070	Actuator Wiring Harness Assy.	1
7	237003	Electric Linear Actuator (8" Stroke)	1
8	264006	Fuse Holder	1
9	264008	Rocker Switch	1
10	277030	Fixed Diameter Cable Clamp	2
11	500010	Control Panel	1
	275020	Lift Control Decal	1
12	600238	Actuator Bracket	2
13	600239	Top Long Support	1
14	600240	Top Short Support	1
15	600269	Actuator Bracket Spacer	2

ELECTRIC LIFT KIT PARTS

