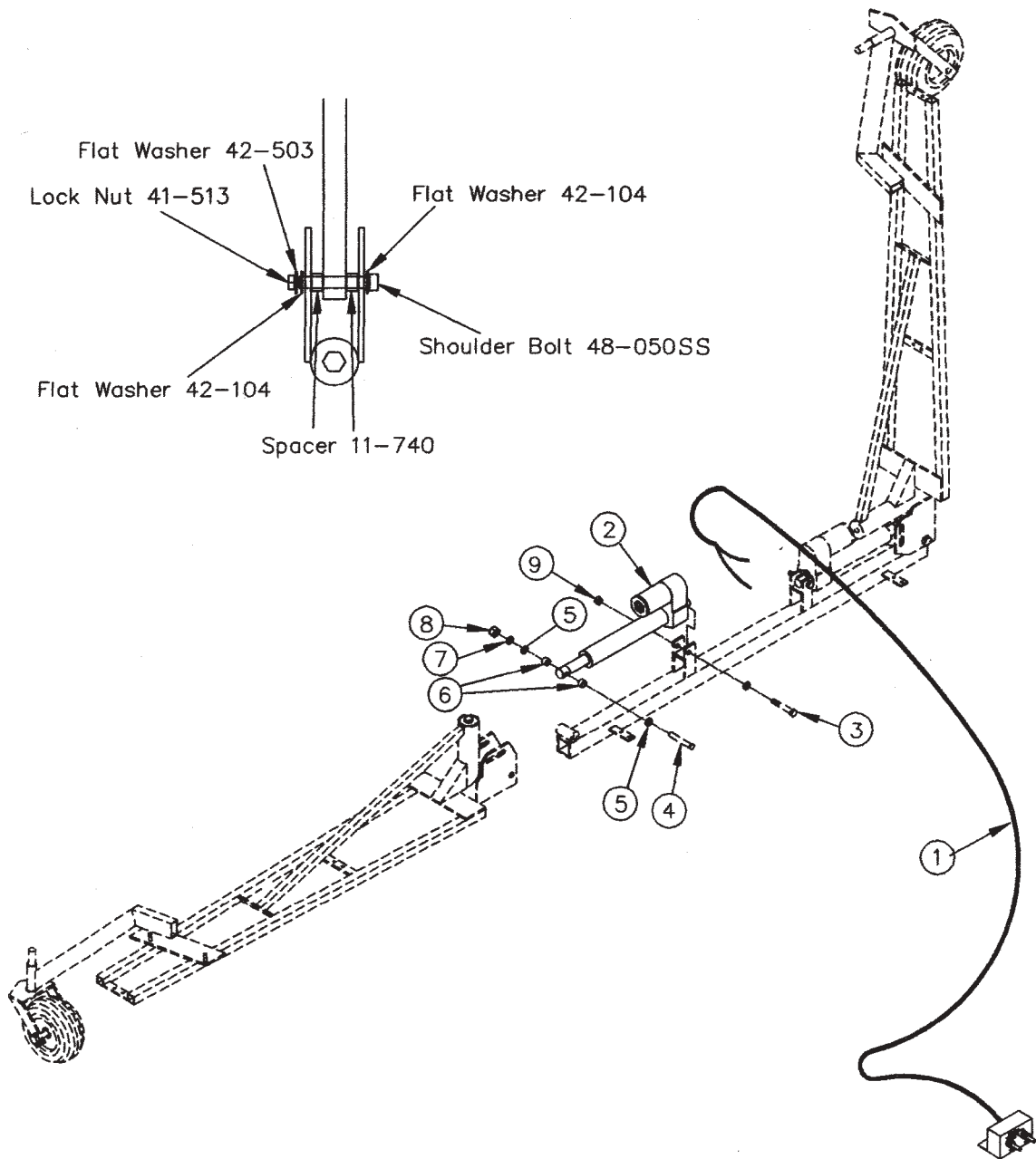


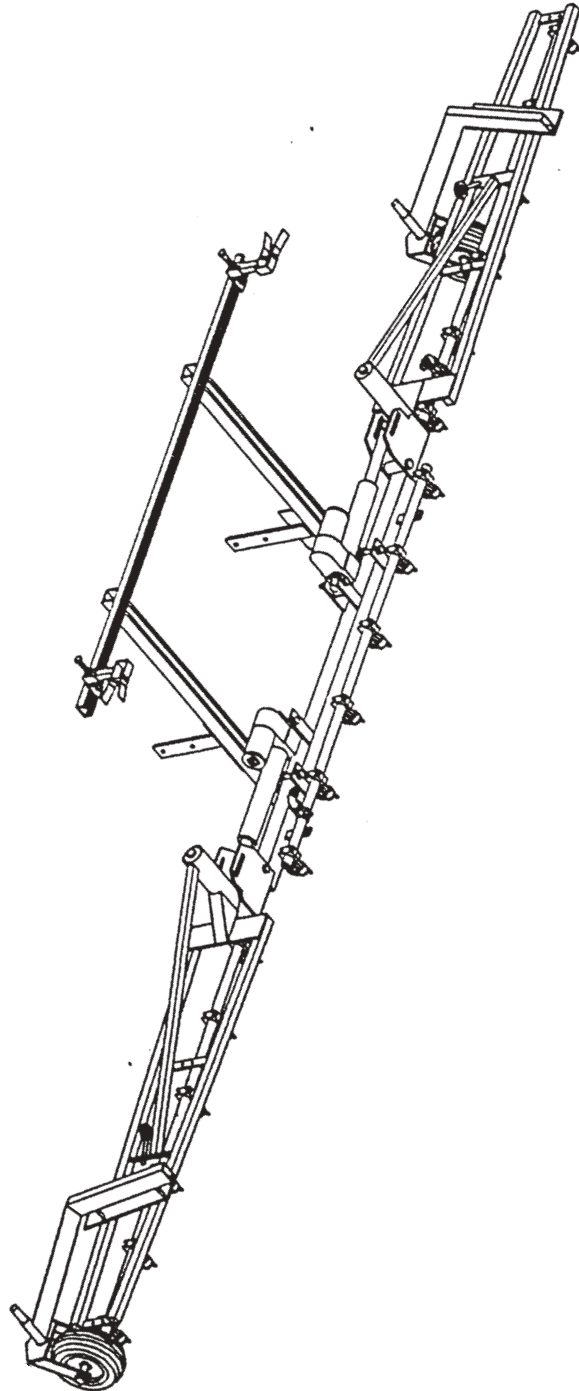


<u>Item #</u>	<u>Part #</u>	<u>Description</u>	<u>Qty</u>
1	56-023-3	Switch Box and Harness	1
2	20-057	Actuator	2
3	34-109	Bolt 1/2 x 2-1/2"	2
4	48-050SS	Shoulder Bolt 1/2 x 3"	2
5	42-104	Flat Washer 1/2"	4
6	11-740	Spacer 1/2" SST	4
7	42-503	Flat Washer 3/8" SST	2
8	41-513	Lock Nut 3/8" SST	2
9	41-514	Lock Nut 1/2" SST	2



SDI Electric Lift
Part No. ELA KIT-2

Rev 3 PII30/0210jj



**Optimum Turf Spray Boom
With Ground Contour Wheel
Kit Option Completely Assembled**

Electric Lift Option Installation Instructions:

Part Number ELA KIT-2 is furnished as an option to change the manual lift Optimum Turf Spray Boom to an electric lift Spray Boom. A 12 volt DC power source is required for this assembly. If your Optimum Turf Spray Boom is to be used with the Ground Contour Wheel Kit, the following items need to be removed before installing the electric lift option:

- The two eyebolts that are mounted on the breakaway arms where the lower part of the cable hooks up.
- The two thimbles on the end slots of the cross member where the upper part of the cable hooks up.
- The two cables and all cable clamps.

Save these parts! They can be used as a temporary replacement if an actuator fails.

If your Optimum Turf Spray Boom with electric lift is **not** going to be used with the Ground Contour Wheel Kit, leave the cable assemblies for the breakaway arms in place and proceed as follows:

NOTE: The Optimum Turf Spray Boom must be completely assembled and set up correctly before installing the electric lift kit. If the boom is not assembled, see the set-up instructions for the spray boom and then proceed with the installation of the electric lift kit as follows:

1. Make sure to lower both breakaway arms down to the spray position.
2. Actuators must be in the fully extended position to install correctly. If they are in the compressed position, connect the battery clips on the harness assembly to a 12 volt battery. Connect the yellow and green wires to the wire connector on the actuator and flip the switch marked "left side" to the up position until the actuator shaft is fully extended-then release switch. Disconnect the harness assembly from the actuator and the battery.
3. Using the 1/2 x 2-1/2" bolts, Part #34-109, and the lock nuts, Part #41-514, connect the fixed end of the actuator, Part #20-057, to the center section with the actuator motor on the top side.
4. Align the hole on the end of the actuator shaft with the slot on the lower breakaway hinge. Install a 1/2" flat washer, Part #42-104, on the shoulder bolt, Part #48-050SS, and insert through the slot and onto the hole on the actuator shaft. Then install another 1/2" flat washer on the end of the shoulder pin and insert a cotter

pin into the hole on the shoulder pin. Bolt with 3/8" lock nut, Part #41-513.

Repeat the above procedure for the other breakaway arm.

5. Before connecting the wire harness to the 12 volt power source, connect the harness assembly to the wire connector on the actuators. The yellow and green wires operate the left side, the red and brown wires operate the right side. Route the harness assembly forward to the operator area.

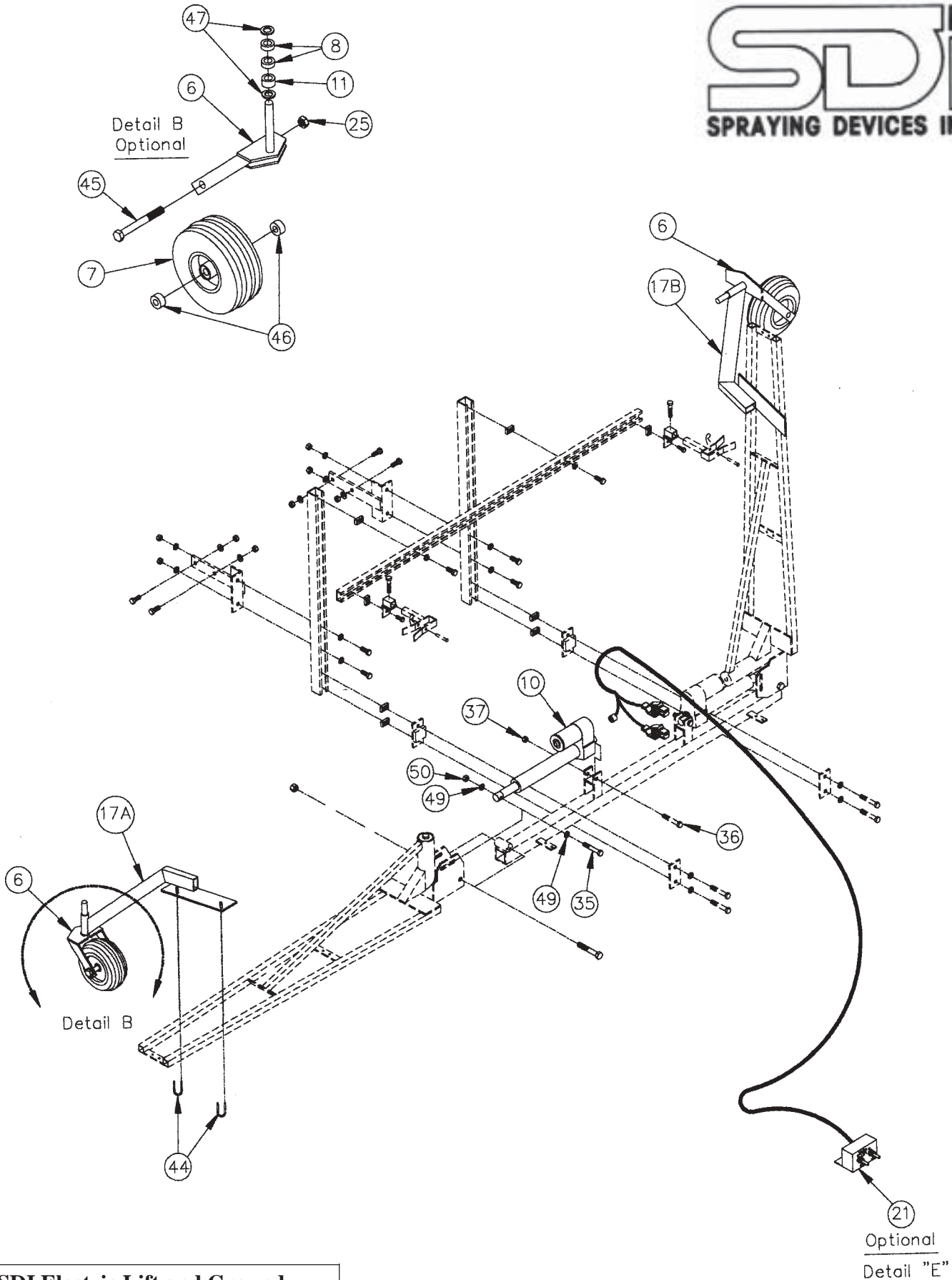
6. Mount the switch box in a convenient location for the operator (near spray boom controls, dash board, etc). Install the connector plug from the harness assembly to the connector plug on the harness from the switch box. Connect the battery clips from the switch box harness to the 12 volt power source. (Red to positive, brown to negative).

7. Position the boom rest brackets on each end of the cross member. Loosen the 3/8" x 3/4" bolt that mounts the boom rest mounting bracket to the cross member. Slide the boom rests in, about ten inches from the ends of the cross member. Using the switch box, raise each breakaway arm until the actuator is fully extended. Slide the boom rest bracket up for each side, against the middle rail on each breakaway arm. This is the correct position for the boom rest. Tighten all bolts securely.

8. When all connections are complete, flip the up-down switch for each side to insure each boom will raise and lower properly.

NOTE: Low voltage at the battery or insufficient wire size can cause the actuators to overheat, operate slowly and fail prematurely. Helpful hints to insure proper operation and long actuator life:

1. With vehicle running, test battery voltage. A fully charged battery should read a minimum of 14 volts DC. If battery voltage is low, test the battery and charging system.
2. Voltage at the actuator should not exceed 28 amps per actuator. The highest voltage draw will be the first few feet of lift. To accurately test the current draw, test at the actuator with an amp meter.
3. If power supply leads are not connected directly to the battery, make sure the wire size of the wires is a minimum of 12 gauge. Check all wire harness connectors and wire terminals for loose connections.
4. It is recommended that an anti-corrosion compound be applied to all electrical connections. Also, sealing all connections with clear RTV silicone will prevent moisture penetration.



**SDI Electric Lift and Ground
 Contour Wheel Kit for Optimum
 Turf Spray Booms - All Models**

SDI Optional Equipment for Optimum Turf Spray Boom

Item Number	Part Number	Description	Qty
		Optional Ground Contour Wheel Kit (Detail B) consists of the following items:	
6	11-722	Wheel and Yoke Assembly	2
7	80-026	Wheel	2
8	11-723	Spacer Ring 1/2" Thick	4
11	11-724	Spacer Ring 3/4" Thick	2
17A	11-877L	Left Wheel Mount for 15'/20" and 20'/20" Spacing Boom	1
17B	11-877R	Right Wheel Mount for 15'/20" and 20'/20" Spacing Boom	1
17A	11-880L	Left Wheel Mount for 15'/10" Spacing Boom	1
17B	11-880R	Right Wheel Mount for 15'/10" Spacing Boom	1
25	41-115	Nylock Nut 5/8" NC, Plated	2
44	41-513	Lock Nut 3/8" SST	4
45	35-121	Bolt 5/8" NC x 5-1/2" Grade 8, Plated	2
46	11-726	Axle Spacer	4
47	42-108SS	Flat Washer 3/4" SAE, SST	1

Ground Contour Wheel Kit Option - Installation Instructions:

The Ground Contour Wheel Kit, 10" or 20" spacing, converts the Optimum Turf Spray Boom to a Ground Contour Spray Boom. This allows the spray boom to follow undulating ground contours without the use of electric sensors. This kit can be used on all the Optimum Turf Spray Boom Models with manual lift operation or electric lift option.

Note: The Optimum Turf Spray Boom must be completely assembled and set up before adding the Ground Contour Wheel Kit. Newer Optimum Turf Spray Booms come standard with the Wheel Kit.

1. Install the left wheel mount, Part #11-877L or 11-880L loosely to the rails on the left breakaway arm using the two lock nuts, #41-513. Slide the wheel mount on the rail towards the hinge. When installed correctly the left wheel mount will point forward and away from the sprayer at an angle. Tighten the nuts securely.

Note: This is the suggested mounting for the wheels. This position will minimize the chance of damage to the boom. The wheels may be mounted on the rear side of the boom if necessary. If so, you will have to switch the wheel mounts to the opposite side breakaway arm. This mounting will point the wheel mounts back and away from the sprayer.

2. If the wheel, #80-026 is not pre-assembled on the yoke assembly, Part #11-722, do so at this time. Make sure to install the axle spacers, #11-726, on the 5/8 x 5-1/2" axle bolt, #35-121, before installing the wheel on the yoke assembly. Tighten the 5/8" lock nut on the axle bolt just enough to keep the axle bolt from sliding back and forth on the yoke assembly.

3. Install the shaft on the yoke assembly up through the hole on the tip of the wheel mount. Re-check the spray tip height before installing the spacers, #11-723 or #11-724, washers #42-108SS or cotter pin on the shaft.

If adjustments need to be made, use any combination of spacers to achieve the correct spray height. Place a washer between the spacer and the wheel mount surface. After all adjustments have been made, insert a cotter pin into the hole on the yoke assembly shaft at the point where the washer is right against the cotter pin.