

## PARTS & INSTALLATION INSTRUCTIONS

### MDII™ E-57H ELECTRO-LIFT®

#### with ELECTRO-TOUCH and 1-1/2" x 10" P.A. Rams

#### Parts List

Item	Meyer Part No.	Diamond Part No.	Qty.	Description
	15900	80467	1	<b>Lift and P.A. Ass'y. (Complete) 12 volt</b>
1	15866	15867	1	• Lift Ass'y. (Unit only) 12 volt
2	15860	80431	1	• Hydraulic Cover
3	15764	15764	1	• Harness and Fuse Ass'y.
4	15370	15370	1	• Starter Solenoid - 12 volt
5	07019	80061	1	• Ram L.H. with Hose & Fittings
	07968	817000020	1	•• Ram (1-1/2" x 10")
6a	22396	-----	1	•• Hose Ass'y. 1/4 x 39" Lg.
6a	-----	816000095034	1	•• Hose Ass'y. 1/4 x 34" Lg.
7a	22141	8752202004004	1	•• 1/4 x 90 Degree Elbow
8a	22291	22291	1	•• Coupler 1/4 - Male Half
9a	22325	22325	1	• Coupler Cap Low Spill
10	07020	80062	1	• Ram R.H. with Hose & Fittings
	07968	817000020	1	•• Ram (1-1/2" x 10")
6b	22396	-----	1	•• Hose Ass'y. 1/4 x 39" Lg.
6b	-----	816000095034	1	•• Hose Ass'y. 1/4 x 34" Lg.
7b	22141	8752202004004	1	•• 1/4 x 90 Degree Elbow
8b	22292	22292	1	•• Coupler 1/4 - Female Half
9b	22326	22326	1	• Coupler Plug Low Spill
	07240	07240	1	• Harness Plug Assy.
11	22262	22262	1	•• Female Socket (Hydraulic side)
12	22261	22261	1	•• Male Plug (Vehicle Side)
13	22263	22263	1	•• Weather Cover (Hydraulic side)
14	22279	22279	1	•• Weather cover (Vehicle Side)
	08726	08726	1	•• Hardware Bag (Harness Plug Assy.)
15	22389	22389	2	••• #10-24 x 2-1/4" Machine Screw Rd. Hd.
16	20844	20844	2	••• #10-24 Esna Locknut
17	15671	15671	1	• Power Cable - 63" - RED
18	15672	15672	1	• Ground Cable - 42" - BLACK
19	05024	05024	1	• Power Cable - 36"
20	08473	08473	1	• Relief Valve Kit - Reservoir
	15765	15765	1	• <b>Hardware Bag</b>
	07273	07273	1	•• Tap Connector
21	15102	15102	1	•• Bolt 5/16 - 18 x 1/2" Gr. 2
22	15673	15673	1	•• Membrane Switch Bracket
23	15675	15675	1	•• Clamp Plate
24	15676	15676	1	•• Backup Plate
25	20312	20312	2	•• Locknut 1/4 - 20
26	20863	20863	2	•• Machine Screw 1/4 - 20 x 1" RND. HD.
27	21398	21398	2	•• S. Tapping Screw 1/4 - 14 x 3/4"
28	21400	21400	1	•• Washer INT/Ext Tooth 5/16
29	21832	21832	2	•• Bushing - Split
	21953	21953	1	•• Decal - Danger (Mount on Dashboard)
30	22154	80115	1	• <b>Membrane Switch</b>
	08364	-----	1	• <b>Hardware Bag (P.A. Rams)</b>
	20146	-----	4	•• Bolt H 5/8 - 11 x 3 1/4" Gr. 5
	20309	-----	4	•• Locknut 5/8 - 11
*	08642	08642	1	<b>Kit Bracket (Floor Mount) *Optional</b>
31	15677	15677	1	•• Bracket Floor
32	21398	21398	4	•• Hex Head Self Tapping Screw 1/4 - 14 x 3/4"
33	20325	20325	4	•• Lockwasher 1/4"

**Parts indented are included in the carton, bag or assembly under which they are indented.**

Meyer Products and Diamond Equipment reserves the right, under its continuing product improvement program, to change construction or design details, specifications and prices without notice or without incurring any obligation.

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## GENERAL INFORMATION:

**CAUTION:** Always disconnect battery prior to installation.

Check contents against the parts list to determine all are correct and included. When ordering parts, furnish Part No., Name and Description, Type of Hydraulic Unit and Moldboard Size.

SAFETY PRECAUTIONS should be used when **Electro-Lift®** is in OPERATION and plow is in a RAISED position. LOWER plow to ground when vehicle is PARKED.

OVERHAUL and SERVICE INFORMATION is covered on separate instructions.

For **Electro-Lift®** Unit maintenance, refer to "Owner's Manual."

### NOTES:

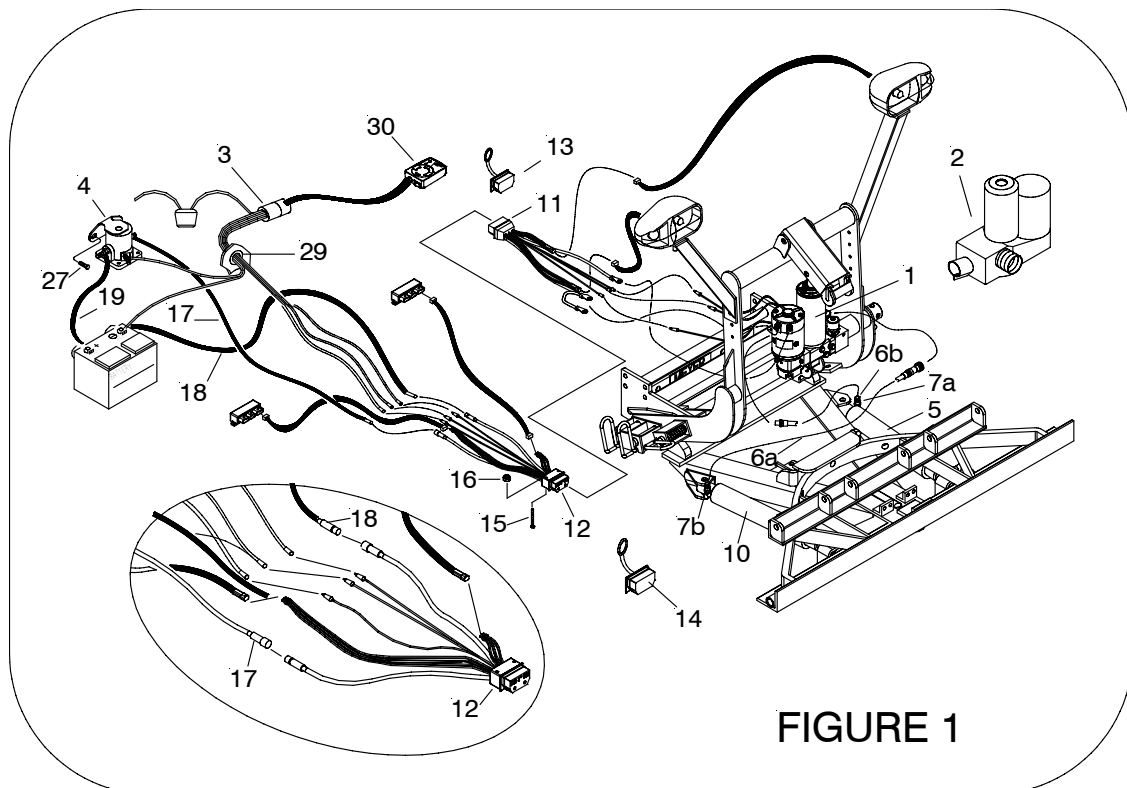
1. Connect ground cable to negative side of battery for a solid connection to ground.
2. Caution: Route all cables away from moving engine parts, Manifolds, and sharp sheet metal.
3. For weather protection, tape all electrical connections at front of vehicle.
4. The vehicle must be equipped with a "Heavy Duty Battery" (70 Amp. Hr. Min.) 550 C.C.A. and "Alternator" (60 amp. Min.) to obtain maximum performance.
5. Follow these instructions explicitly. Warranty does not apply to a Meyer product which has been neglected or improperly assembled or installed.

## INSTALLATION INSTRUCTIONS

- A. Remove shipping plug from filler hole and install Relief Valve Kit (20). Tighten to 100-125 in. lbs.
- B. Install Coupler Cap and Plug (9a,b) onto Power Angling Block.
- C. Install Black Hydraulic Cover (2) before installing the Lift Assembly (1) to the Lift Frame. Begin by sliding the Hydraulic Cover (2) down over the Lift Ram. Slide the cover carefully over the motor, do not force or stretch the Hydraulic Cover (2) it will fit comfortably over all parts of the Hydraulic Unit (1). Feed the three coil wires (red, green and black) through the slotted hole in the Hydraulic Cover(2). Guide the Hydraulic coupler weather cap (9a) and plug (9b) through the holes in the cover. Snap Cover together. **Caution:** Care should be taken with the installation and or removal of the Hydraulic Cover, including partial removal when repairs are performed on the Hydraulic Lift Unit. Tearing of the Hydraulic Cover for any reason will not be covered under the Meyer or Diamond Warranty.
- D. Install the Female socket (11) of the Harness Plug assembly. Attach power cables to the Hydraulic Lift Unit (1). Attach the red (+) cable to the motor stud. Guide the black (-) cable through the slot in the cover, pull cover back to expose the grounding boss. Attach ground cable to the base using bolt (21) and lockwasher (28). Note: Place lockwasher (28) between cable terminal and base so it bites into paint for proper ground. Connect the red, black and green wires from unit solenoids to the red, black and green wires coming from the Female Socket (11). As per Figure 2.
- E. Install E-57H Lift Assembly (1) to Lift Frame (using bolts supplied in the mounting carton), with the Electric Motor toward the left hand side (Driver's side); attach the lift ram to the Lift Arm.

### **WARNING:**

**Lift arm extends beyond bumper of vehicle. To minimize damage from a front-end collision, lift arm should be removed from vehicle when snow plow is not in use.**



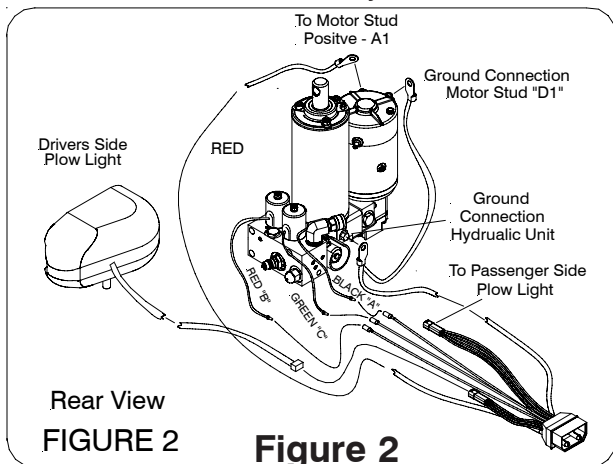
**FIGURE 1**

- F. Install Male Plug (12) to the vehicle, as per illustration on separate Snowplow Mounting Instructions. Attach using #10-24 x 2-1/4" machine screw round head(15) and #10-24 locknut (16).
- G. Choose a convenient location for the control switch. If the desired location is the dashboard, install Bracket (22) by drilling 2 holes in the dashboard and secure using Round Head Machine Screws (26) and Locknuts (25). Install Backup Plate (24) behind dash for added stiffness. See Figure 3. Also apply Danger Decal to dashboard.
- H. To mount control to shift lever, use Bracket (22), Clamp Plate (23), Round Head Machine Screws (26) and locknuts (25). See Figure 3.
- I. The light switch, bracket and sheet metal screws (found in the light carton) can also be located wherever desired.
- J. Use Bushing (29) where Harness (3) is routed through firewall and radiator support panel. Requires 7/8" diameter hole. Be certain to route all wiring around hot or moving engine parts, and any sharp sheet metal. Protection must be provided to guard against wire damage at these points. All excess or loose wire must be neatly secured using wire ties. Fused lead from Wiring Harness (3) must be attached to terminal in fuse panel that is activated only when the ignition key is "on." The three colored wires in Harness (3), black, red and green must be connected to the black, red and green wires of the Male Plug (12). As per Figure 1.
- K. Install Starter Solenoid (4) to metal surface in engine compartment using Screws (27). (Solenoid must be grounded to operate). Attach Red Power Cable (17) to a large terminal on Starter Solenoid (4). Attach Black Ground Cable (18) to negative (-) terminal of battery. Route both Cables (17 & 18) towards Male Plug (12). Plug Cables (17 & 18) into the corresponding cables coming out of Plug (12). As per Figure 1. Attach 36" Power Cable (19) to positive (+) terminal of battery and remaining large terminal on Starter Solenoid (4). Attach small white wire from harness (3) to small terminal on Starter Solenoid (4).

**Note:** All electrical connections should have both ends coated with a dielectric grease prior to final installation. This will ensure a good connection and help in preventing corrosion. When Lift (1) is removed, protect the sockets from corrosion by using Weather Covers (13 & 14).

- L. Attach orange wire with large eyelet (Membrane switch ground wire) from Harness (3) to negative (-) terminal of battery.

**Warning: Membrane switch must have a good ground to operate properly. A poor ground will cause switch to malfunction and cause internal damage to switch. This will not be covered under warranty.**



**POWER ANGLING CYLINDERS:**

Attach Meyer Power Angling Cylinders (5 & 10) to Sector and A-Frame using bolts (20146) and locknuts (20309).

Attach Diamond Power Angling Cylinders (5 & 10) to Blade and Pushframe using cylinder pins (819000001002) (819000001005) and cotter pin (20420) located in the Common Attaching Kit Carton.

Make certain Ram (5) with hose (6) and Male-half of coupler (8) is on Driver's side and Ram (10) with Hose (6) and Female-half of coupler (8) is on the Passenger side.

Note: When the Moldboard Assembly is removed from the vehicle, to prevent contamination to the Couplers and Hydraulic system, the L.H. and R.H. Power Angling Hoses must be reattached by plugging the coupler (8a, 8b) together. Also where the power angling hoses were uncoupled at the hydraulic unit, attach Coupler Cap (9a) and Plug (9b) to the female and male halves of coupler.

Power Angling Cylinders furnished with the Electro-Lift® have been factory filled with the proper amount of fluid. If for any reason it is necessary to add fluid to Reservoir or to bleed the Power Angling Cylinders, proceed as follows:

- A. Remove Relief Valve (20) from Reservoir to add fluid during charging and bleeding.
- B. Temporarily loosen both hose connections at the R.H., L.H. Power Angling Cylinders. Base end of Cylinder must be higher than Rod end to enable trapped air to escape.
- C. Angle the Plow in both directions until fluid leaks out at both points in a steady flow.
- D. Retighten the hose connections.

**NOTE:**

**Proper fluid level is 1-1/2" below filler hole. It must be checked with the lift arm fully retracted (down).**

For snow plow light installation see separate instructions.

Reference Form 1-757 see Paragraph 7

Route Cables "C" (Yellow) from module to Male Plug (12). Connect both "C" Harness female ends to the male corresponding ends of the Male Plug (12). As per Figure 1.

Connect both male ends from the snow plow light to the female ends on the Female Socket (11). As per Figure 2.

Check snow plow light blinkers to make sure the wires have not been reversed.

