



Insta-Act[®] Hydraulic Power Unit Installation Instructions

Table of Contents

Safety Information	2
Attach Mounting Brackets to Insta-Act Hydraulic Power Unit.....	3
Attach Hydraulic Fittings to Cylinders	3
Attach Lift and Angle Cylinders	4
Mount Insta-Act Hydraulic Power Unit	5
Route Hydraulic Hoses to Valve Fittings	6
Install Snowplow Control Harness and Cable	7
Final Adjustments	8

SAFETY INFORMATION

⚠ WARNING




Indicates a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.

⚠ CAUTION

Indicates a situation that, if not avoided, could result in minor personal injury and/or damage to product or property.

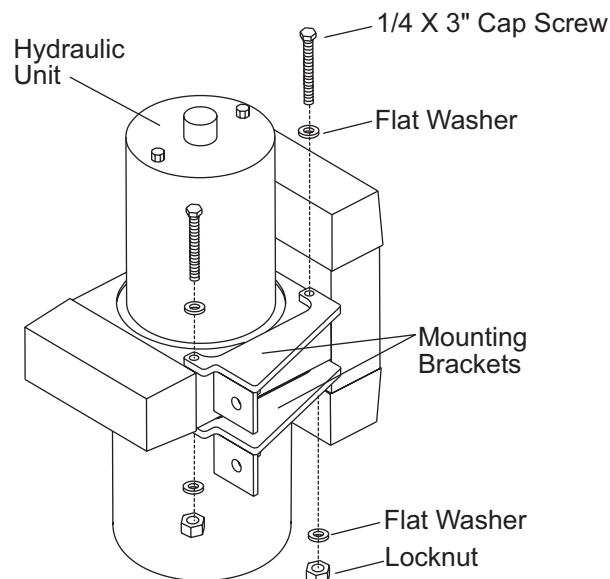
NOTE: Identifies tips, helpful hints and maintenance information the owner/operator should know.

Torque all fasteners according to the torque chart. For proper fit, do not tighten fasteners until instructed to do so.

NC FASTENER TORQUE (FT-LB)			
DIAMETER- THREADS PER INCH	GRADE		
	 G2	 G5	 G8
1/4 - 20	6	9	13
5/16 - 18	11	18	28
3/8 - 16	19	31	46
7/16 - 14	30	50	75
1/2 - 13	45	75	115
9/16 - 12	66	110	165
5/8 - 11	93	150	225
3/4 - 10	150	250	370
7/8 - 9	150	378	591
1 - 8	220	583	893

ATTACH MOUNTING BRACKETS TO INSTA-ACT® HYDRAULIC POWER UNIT

1. Attach the mounting brackets to the valve block with two 1/4 x 3" cap screws, flat washers and locknuts.
2. Tighten cap screws.



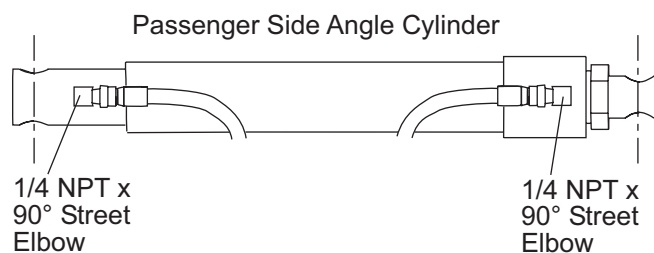
ATTACH HYDRAULIC FITTINGS TO CYLINDERS

⚠ CAUTION

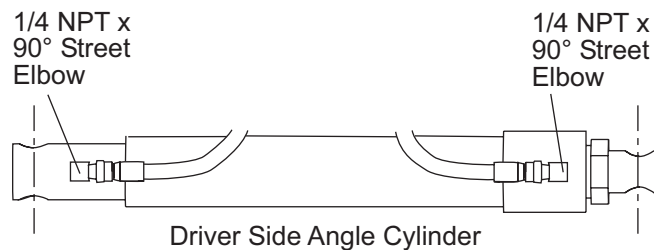
Do not use thread sealant/tape on hoses or fittings. This could damage product.

1. Remove threaded plugs from cylinders using an Allen wrench.
2. Attach fittings (street elbows) to angle cylinders as shown. Fittings must be oriented to direct hoses parallel to cylinders.
3. Attach 36" hoses to fittings in angle cylinders.
4. Attach 18" hose to fitting in lift cylinder.

Angle Cylinder Fittings

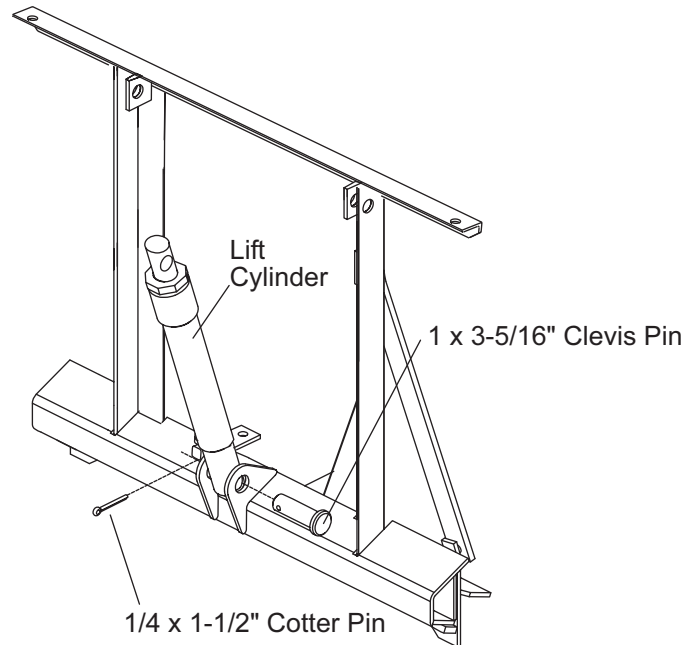


Hoses parallel to cylinder.



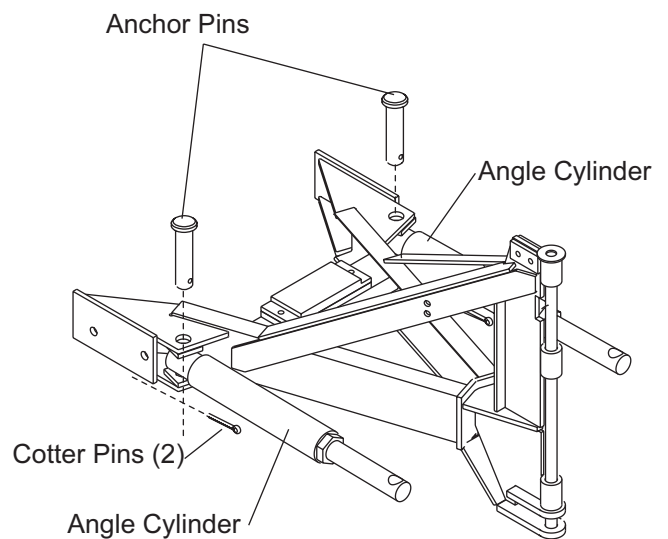
ATTACH LIFT AND ANGLE CYLINDERS

1. Attach the lift cylinder to the headgear with a 1 x 3-5/16" clevis pin and 1/4 x 1-1/2" cotter pin. Position the hydraulic port so it faces the passenger side of the snowplow.



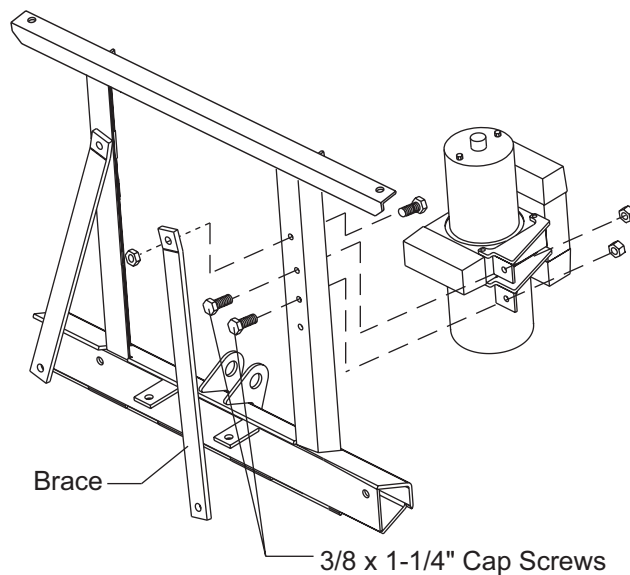
NOTE: For 9-1/2' EZ-V® Blades, install blade stop kit 26634 before attaching angle cylinders.

2. Attach the angle cylinders to the A-frame with the two anchor pins and cotter pins. Position the fittings so they face inward, toward the A-frame.

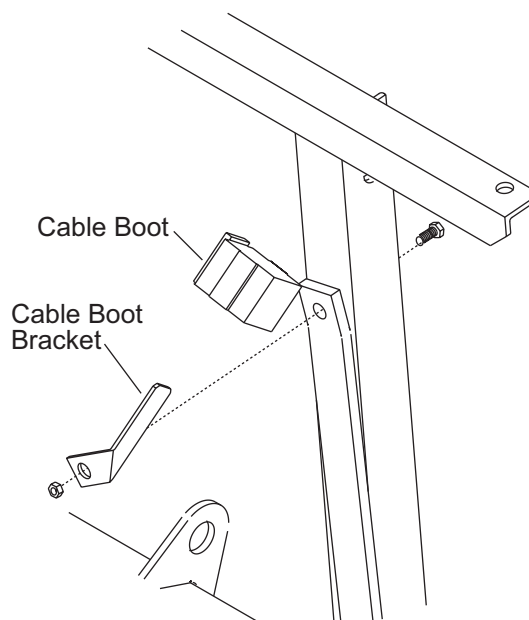


MOUNT INSTA-ACT® HYDRAULIC POWER UNIT

1. Remove the top bolt from the passenger side headgear brace. Loosen the bottom bolt on the passenger side headgear brace. Swing the brace out of the way.
2. Bolt the hydraulic unit to the headgear using two 3/8 x 1-1/4" cap screws and locknuts. Use the top two holes if three holes are available.
3. Reattach and tighten the headgear brace.

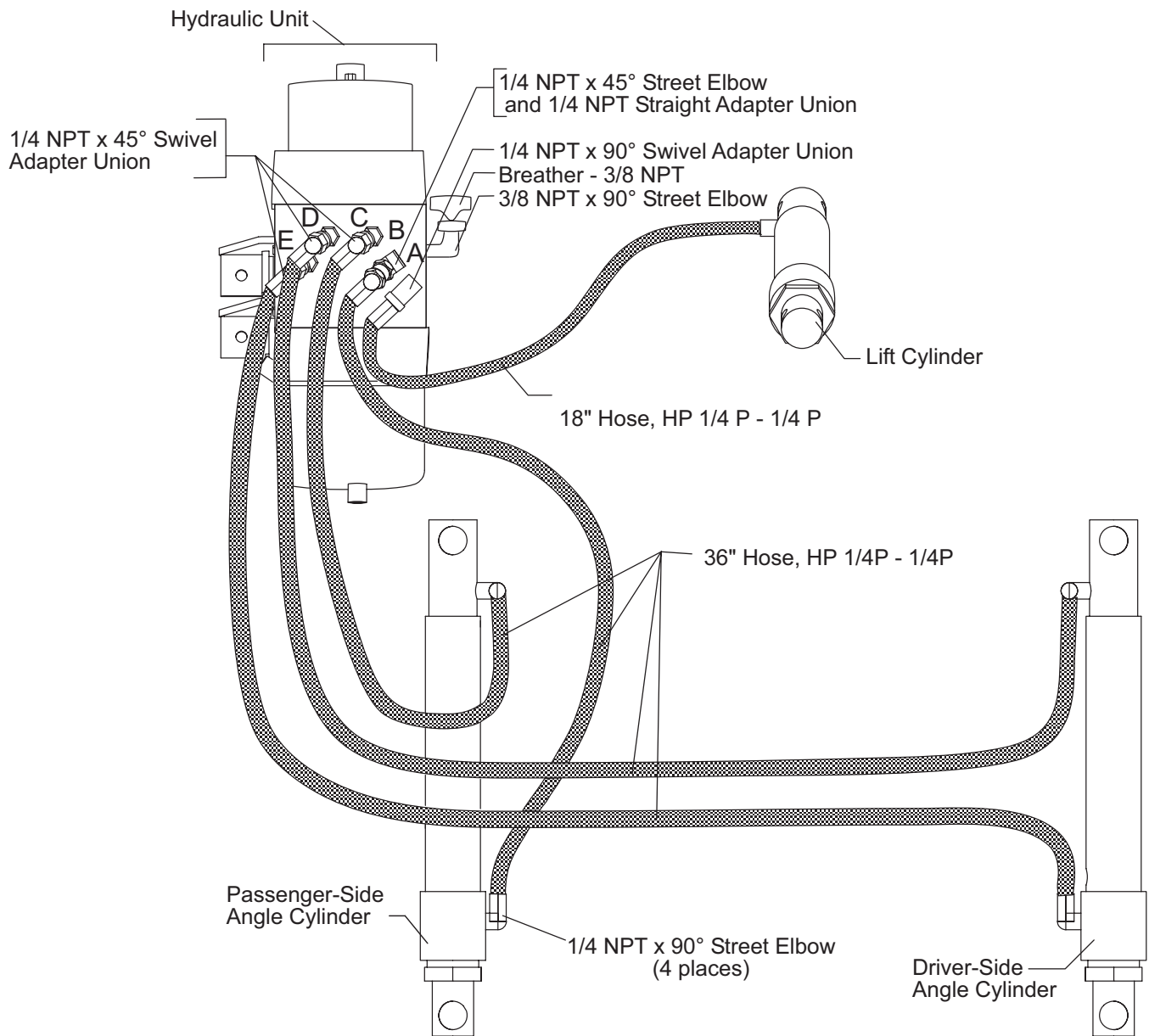


4. Install the cable boot and cable boot bracket on the passenger side headgear brace, reusing the cap screw and flanged locknut already in place.



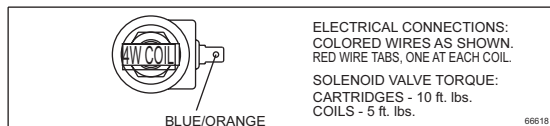
ROUTE HYDRAULIC HOSES TO VALVE FITTINGS

1. Attach the fittings and hoses to the hydraulic unit and cylinders as shown. Attach the fittings beginning at point A and proceed in alphabetical order to point E.
2. Remove the 3/8" plug from tapped port on driver side of primary valve block. Attach 90° elbow and breather.

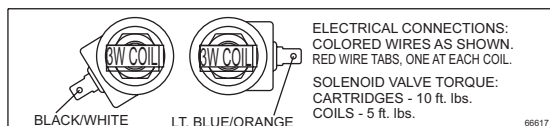


INSTALL SNOWPLOW CONTROL HARNESS AND CABLE

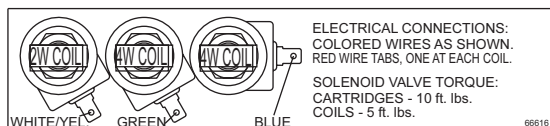
1. Remove the solenoid covers. Connect the snowplow control harness to the valve blocks according to the instructions inside the solenoid covers.



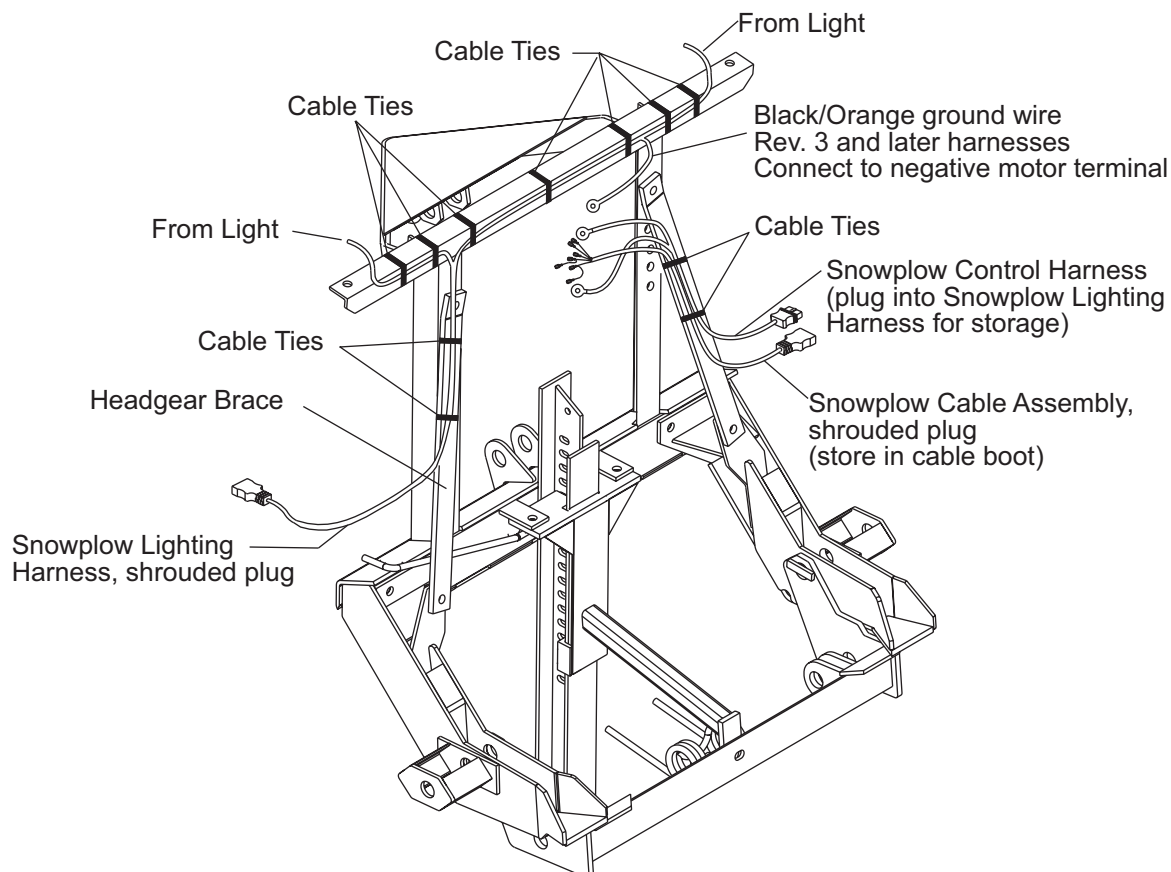
NOTE: The strain reliefs must be inside the cover to prevent unnecessary strain on the solenoid connectors.



2. Attach the snowplow cable assembly to the motor terminals located on the side of the motor body. Connect the black and red striped wire to the positive terminal. Connect the black wire to the negative terminal.
3. Cable tie harnesses and cable assembly to the headgear braces as shown.



NOTE: Snowplow lighting and control harnesses plug into one another for storage.



FINAL ADJUSTMENTS

⚠ WARNING

The driver shall keep bystanders clear of the blade when it is being raised, lowered or angled. Do not stand between the vehicle and the blade, or within 8 feet of a moving blade. A moving or falling blade could cause personal injury.

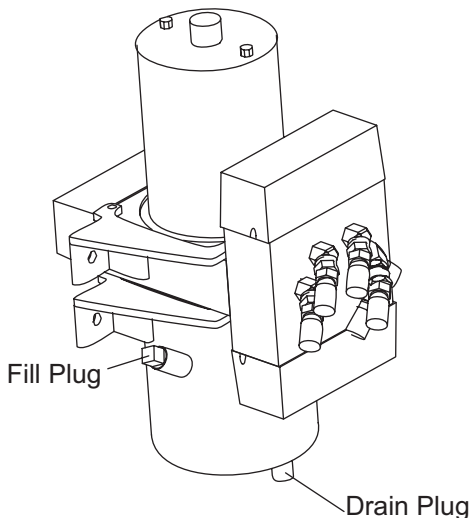
1. Fill with FISHER® High Performance Hydraulic Fluid to top of fill hole.

System Capacity:

Reservoir—1-3/4 quart

Complete System—2-1/2 quarts

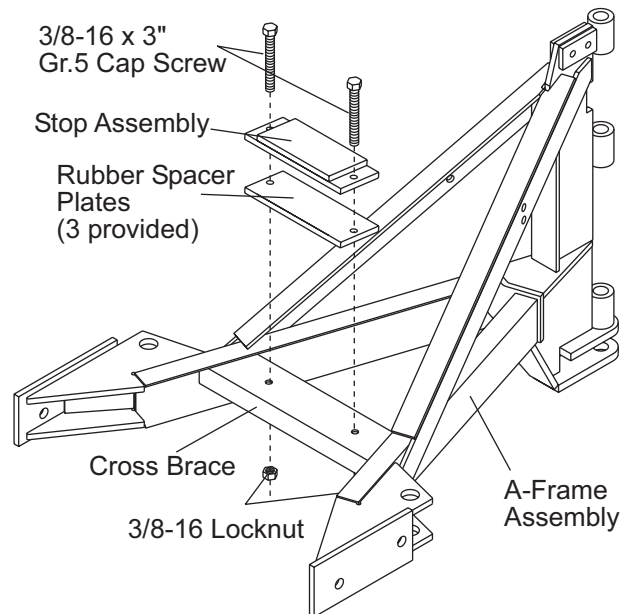
2. Extend and retract the driver-side wing several times. Return to the retracted position.
3. Extend and retract the passenger-side wing several times. Return to the retracted position.
4. Add hydraulic fluid to the reservoir.
5. Raise and lower the snowplow several times. Return to the lower position, retracting the cylinder completely.



6. With the angling cylinders and lift cylinder retracted, add enough additional hydraulic fluid so the fill plug can just be replaced without overflowing.
7. Raise the lift cylinder to full extension. The lift cylinder should have approximately 10" of lift and the A-frame stop assembly should contact the lower crossmember of the headgear. Lower the blade. Adjust the length of the lift chain and adjust the number of rubber plates on the stop kit so the A-frame hits the headgear when the lift cylinder is fully raised.

NOTE: In all cases, install at least one rubber spacer plate and the stop assembly.

8. Torque the two 3/8 x 3" full thread cap screws and 3/8" locknuts to 31 ft-lb. **Tighten both U-bolts.**



Fisher Engineering reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used herein. Fisher Engineering and the vehicle manufacturer may require and/or recommend optional equipment for snow removal. Fisher Engineering offers a limited warranty on all snowplows and accessories. See separately printed page for this important information. The following are registered (®) trademarks of Douglas Dynamics, L.L.C.: FISHER®, Insta-Act®, EZ-V®

Printed in USA