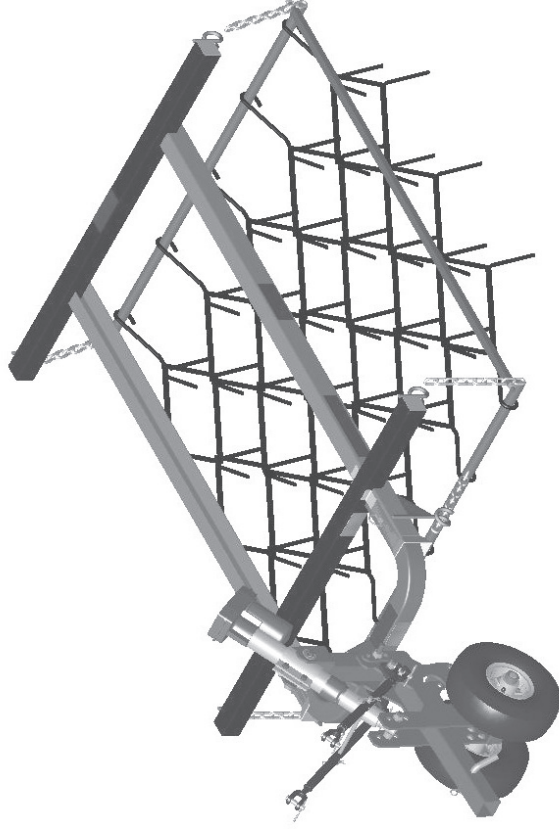




Speedpoint System Hitch and Harrow

Operator's Manual
Installation Instructions
Replacement Parts List



Effective Date: March, 2008

LIMITED WARRANTY

Arctic Cat Inc. (hereinafter referred to as Arctic Cat) extends a limited warranty on each new Arctic Cat Speedpoint System accessory sold by an authorized Arctic Cat ATV dealer. Arctic Cat warrants that the product is free from defects in materials and workmanship for a period of one (1) year from the date of purchase by the original purchaser.

Arctic Cat warrants only the products it manufactures and/or sells and does not warrant that other products will function properly when used with an Arctic Cat ATV or will damage the ATV. Arctic Cat does not assume any liability for incidental or consequential damages.

Arctic Cat will repair or replace, at its own option, free of charge (including any related labor charges), any parts that are found to be warrantable in material or workmanship. The repair work **MUST** be done by an authorized Arctic Cat ATV dealer. No transportation charges will be paid by Arctic Cat. Warranty applies only to products which have been properly assembled, adjusted, and operated in accordance with the instructions sent with the product. Warranty does not apply to any product of Arctic Cat that has been subject to alteration, misuse, abuse, improper assembly or installation, normal wear, or normal maintenance. The warranty is validated upon examination of said parts by Arctic Cat or an authorized Arctic Cat ATV dealer. Arctic Cat reserves the right to inspect such parts at its factory for final determination if warranty should apply.

In consideration of the foregoing, any implied warranty is limited in duration to the various warranty periods set forth. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or country to country. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.



The Safety Alert Symbol means ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED.



WARNING

Failure to follow WARNING instructions could result in severe injury or death to the ATV/Speedpoint Accessory operator, a bystander, or a person inspecting or repairing the ATV or Speedpoint System.



CAUTION

A CAUTION indicates special precautions that must be taken to avoid damage to the ATV and/or the Speedpoint Accessory.

■ NOTE:

A NOTE provides key information to make procedures easier or more clear.

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SAFE OPERATING PRACTICES

WARNING

Failure to observe the following safety instructions could result in serious injury and or death.

General Operation

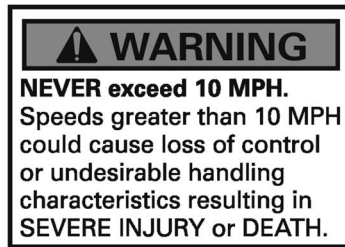
1. Read the operating and servicing instructions in this manual carefully.
2. Be thoroughly familiar with the controls and the proper use of the equipment.
3. Only allow responsible adults, who are familiar with the instructions, to operate this equipment. Never allow children to operate the equipment.
4. Be sure the area is clear of bystanders, children, and pets before operating. Stop the ATV if anyone or anything enters the area.
5. **NEVER CARRY PASSENGERS** while operating the Speedpoint accessory - **EVEN IF YOURS is a TWO-UP ATV!**



1411-507

6. Take all possible precautions when leaving the equipment unattended. Lower the attachment and set the parking brake. Shut off the engine.
7. When cleaning, repairing, or inspecting, make certain that all moving parts have stopped. Shut off the engine.
8. Exercise extreme caution when changing direction on slopes. Do not operate across slopes, up and down only. Do not attempt to operate on steep slopes.
9. Beware of hidden underground objects. Contact with hidden objects might cause sudden stop of ATV and damage to the equipment.
10. Keep hands and feet out from under the equipment at all times.

11. Do not operate the attachment if it has been dropped or damaged in any way. Inspect and repair as necessary.
12. Do not operate the vehicle at speeds higher than 10 MPH and use care when backing up.



1411-506A

13. Do not stand or ride on the equipment at any time.
14. Check all fasteners at frequent intervals for tightness to be sure the equipment is in safe operating condition.
15. Do not load or unload ATV with Speedpoint equipment attached to the ATV.



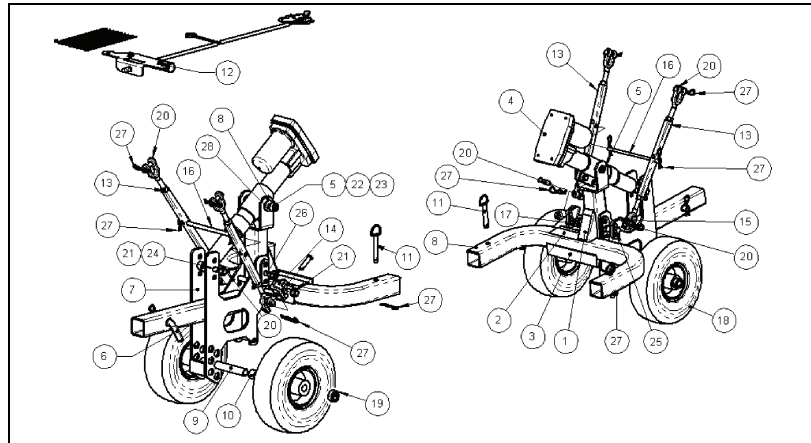
1411-506B

16. Maintain or replace safety and instruction labels as necessary.

SERVICE PARTS

3-Point Hitch Assembly (p/n 1436-078)

Ref. No.	Qty	p/n	Description
1	1	1411-503	Warning Decal
2	1	1411-506	Warning Decal
3	1	1411-509	Decal
4	1	1441-483	Actuator
5	4	1441-484	Bushing (Actuator)
6	1	1441-485	Hitch Pin (5/8 in.)
7	1	0541-508	Fixed Hitch
8	1	0541-509	Pivot Hitch
9	1	1441-486	Axle Shaft
10	2	1441-487	Spacer Tube
11	2	1441-488	Hitch Pin
12	1	0436-938	Switch and Harness Sub-Assembly
13	2	0541-668	Hitch Link Assembly
14	1	0541-670	Mounting Bracket (Right Side)
15	1	0541-671	Mounting Bracket (Left Side)
16	1	0541-742	Link Rod
17	1	0541-743	Pin (Lower Mount)
18	2	0541-512	Pneumatic Hub/Wheel Assembly
19	2	1441-489	Collar (3/4 in.)
20	4	0423-823	Clevis Pin
21	3	0423-690	Flange Lock Nut (1/2 in.)
22	2	0423-691	Flat Fender Washer (5/16 x 1 1/4 x 1/8 in.)
23	2	0423-692	Hex-Head Bolt (5/16-18 x 3/4 in.)
24	1	0423-693	Hex-Head Bolt (1/2-13 x 3 1/4 in.)
25	1	0423-694	Hex-Head Bolt (1/2-13 x 4.0 in.)
26	1	0423-695	Hex-Head Bolt (1/2-13 x 4 1/2 in.)
27	8	0423-696	Hitch Pin Clip
28	2	0423-697	Lock Washer (5/16 in.)



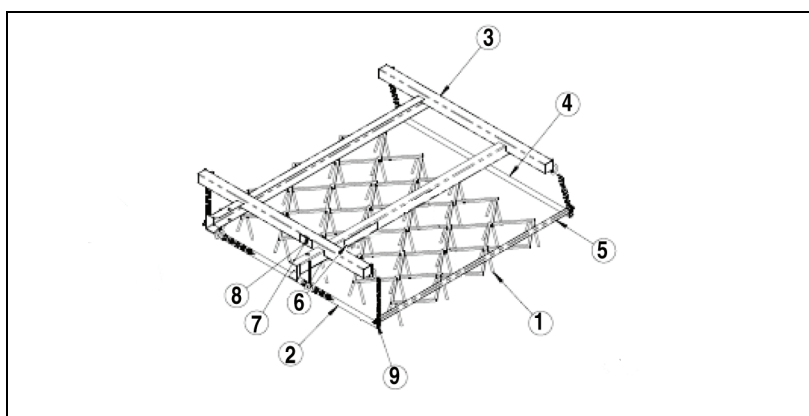
ATV-175

Switch Assembly (p/n 0436-938)(Not Illustrated)

p/n	Qty	Description
0409-084	1	Seal (Toggle Switch)
0409-085	1	Toggle Switch
0409-086	1	Wiring Harness
0541-528	1	Switch Plate
1411-524	1	Decal (Up/Down)
8408-816	2	Cap Screw (8 mm x 1 1/4 - 16)
8424-802	2	Hex Nut (8 mm x 1 1/4)
0423-594	2	Clamp
0123-788	10	Cable Tie

Harrow Assembly (p/n 0436-935)

Ref. No.	p/n	Qty	Description
1	1441-503	1	Harrow
2	0541-524	1	Harrow Guide
3	0541-523	1	Frame
4	0541-525	1	Harrow Support
5	1441-502	2	Separator Tube
6	1411-509	2	Decal (Arctic Cat Speedpoint System)
7	N/A	1	Decal (Serial Plate)
8	N/A	1	Decal (Serial Plate Cover)
9	0423-698	4	Lock Nut (3/8 in.)



ATV-100

Decals (Not Illustrated)

p/n	Qty	Description
1411-506	2	Warning Decal (Maximum Speed)
1411-507	1	Warning Decal (No Passengers)
1411-509	2	Decal (Arctic Cat Speedpoint System)

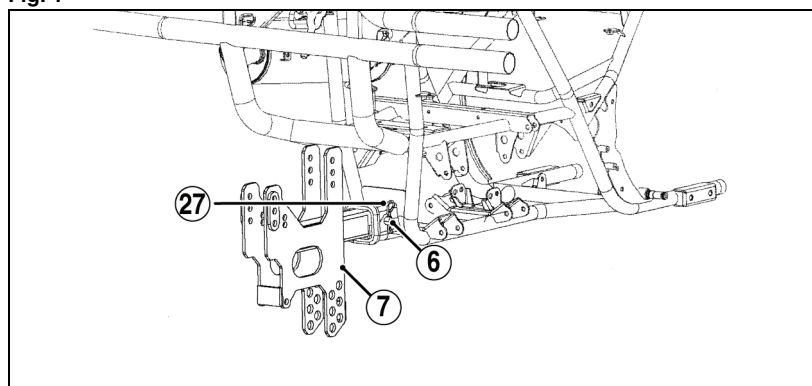
SETUP AND OPERATION

Setup of the 3-Point Hitch

■ **NOTE:** For a complete illustration and list of components, see pages 4 and 5 of this manual.

1. Remove the components from the shipping package; then verify that there are no missing or damaged components. See bill of materials for list of parts included in kit.
2. Place the ATV on a flat surface and secure with the parking brake.
3. Position Fixed Hitch (7) onto the ATV receiver hitch and secure with Hitch Pin (6) and Hitch Pin Clip (27). See Fig. 1.

Fig. 1

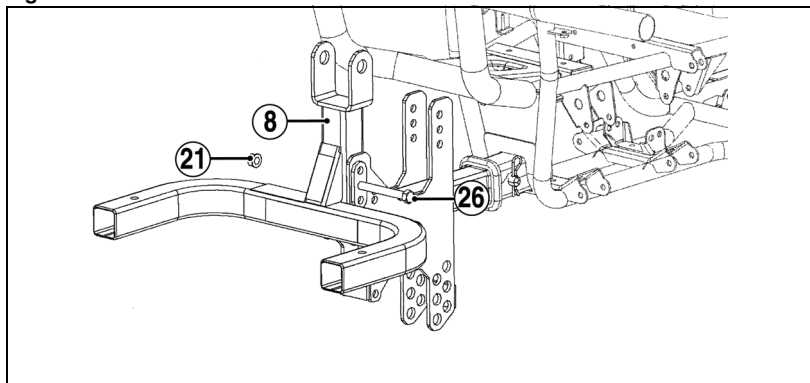


ATV-1123A

4. Position Pivot Hitch (8) onto the fixed hitch and secure with Hex-Head Bolt (26) and Flange Lock Nut (21). Tighten only until snug. See Fig. 2.

■ **NOTE:** Do not over-tighten the lock nut. The hitch must be able to move without much resistance.

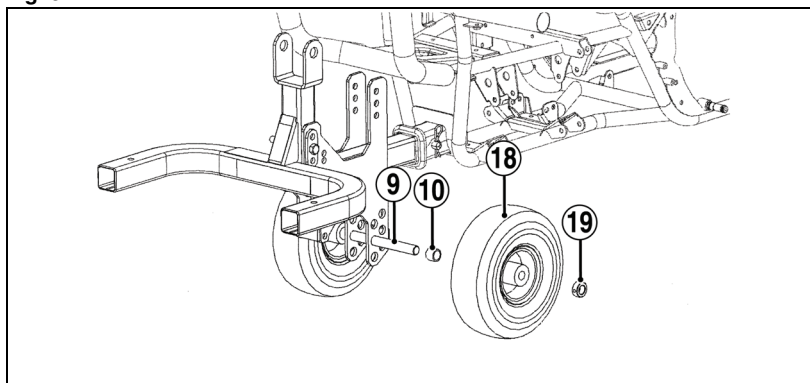
Fig. 2



ATV-1122

5. Install Pneumatic Hub/Wheel Assembly (18) using Axle Shaft (9), Tube Spacers (10), and Collars (19). Tighten both collars securely at this time. See Fig. 3.

Fig. 3



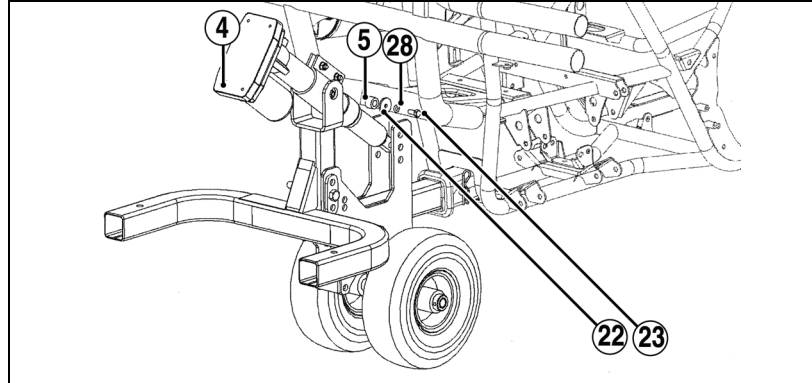
ATV-1121

6. Grease both wheels; then clean off excess grease from the wheel assembly.

■ **NOTE:** With no one sitting on the ATV, the 3-point hitch wheels should be approximately 3-4 inches off the ground while no implement is attached.

7. Position the Actuator (4) onto the pivot hitch; then secure with Bushing (5), Flat Washer (22), Lock Washer (28), and Hex-Head Bolt (23). Do not tighten at this time. See Fig. 4.

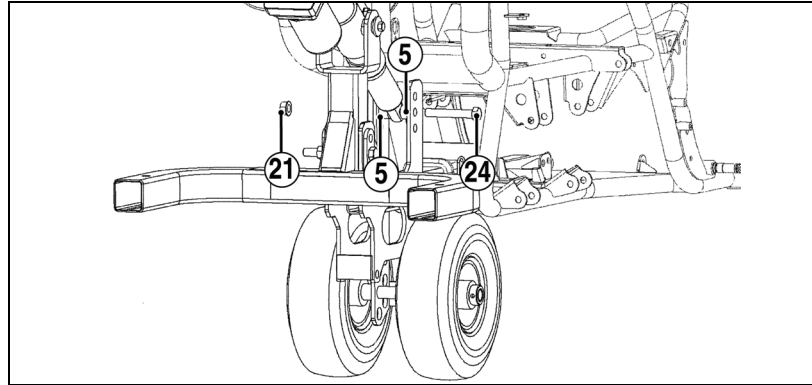
Fig. 4



ATV-1125

8. Repeat for opposite side. Tighten securely.
9. Making sure a Bushing (5) is placed on either side of the actuator, secure the front of the actuator to the fixed hitch with Hex-Head Bolt (24), and Flange Lock Nut (21). See Fig. 5.

Fig. 5

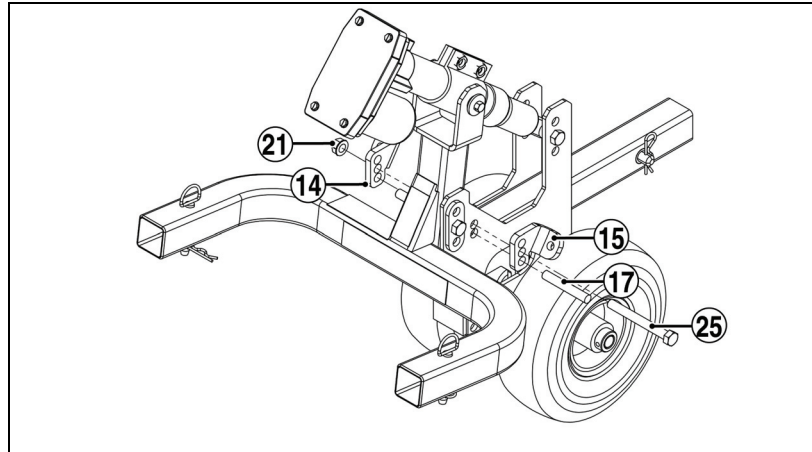


ATV-1124

■ **NOTE:** It may be necessary to loosen the sleeve that holds the actuator to the hitch and then slide the actuator so that the rubber boot on the front of the actuator is touching the sleeve; then securely tighten the sleeve. If the sleeve slips while lifting an attachment, tighten the sleeve more.

10. To install Right-Side and Left-Side Mounting Brackets (14 & 15), first insert the Pin (17) into the lower hole. See Fig. 6.

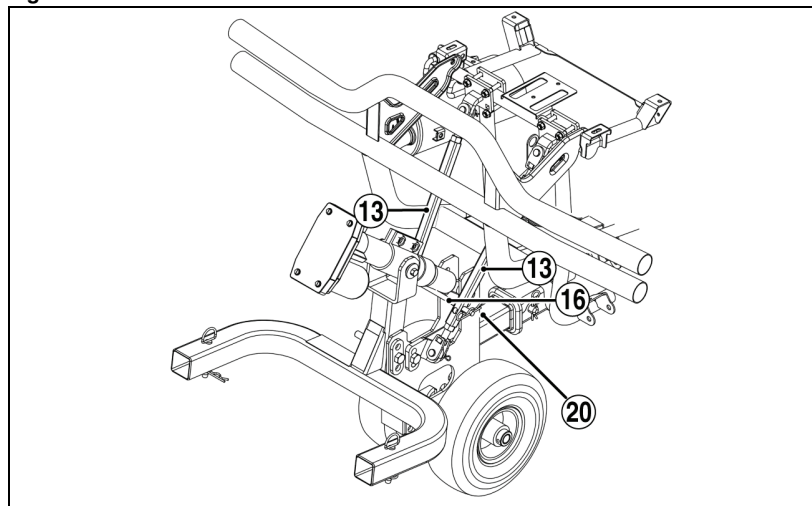
Fig. 6



ATV-1127A

11. Install the Right-Side and Left-Side Mounting Brackets (14 & 15) over the pin. Install the Hex-Head Bolt (25) into the corresponding hole. Secure with Flange Lock Nut (21). See Fig. 6.
12. Tighten all fasteners securely.
13. To install Hitch Links (13), place one end of each link onto the upper mount; then secure with Clevis Pins (20) and Hitch Pin Clips. See Fig. 7.

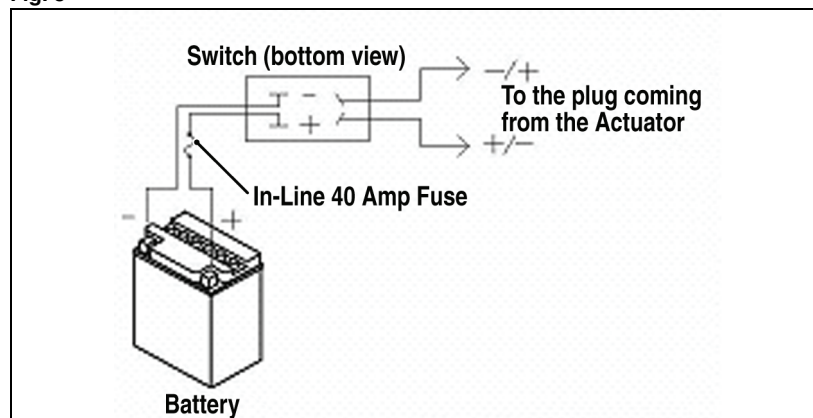
Fig. 7



ATV-1126B

14. With the upper end of each Hitch Link (13) fastened to the appropriate upper mounts (purchased separately), rotate each link to allow the lower clevis pin to be installed through the link clevis and lower mounting brackets. See Fig. 7.
15. Once both links are installed, turn each link to shorten its length until all slack is removed from each link.
16. Slide the Link Rod (16) through the openings in the body of each hitch link to prevent the hitch links from turning; then secure with hitch pin clips. See Fig. 7.
17. Back up the ATV and line up the receiver hitch of the ATV with the 3-point hitch.
18. Insert the 3-point hitch into the receiving hitch until the holes for the pin line up on both the implement and the ATV. Insert pin and locking clip. The tires of the 3-point hitch should now be 3-4 inches off the ground while no implement is attached to it and no rider is on the ATV.
19. Mount the hitch link assemblies to the hitch links on the upper rear of the ATV frame. Once both links have been installed (with pins provided), rotate each link to adjust and remove slack. Slide the link rod through the holes in the hitch links. Secure with hitch pin clips.
20. Attach the plate with switch (which connects to the main harness of the actuator) to the ATV rack. Refer to the following illustration when attaching wires to the switch and battery.

Fig. 8

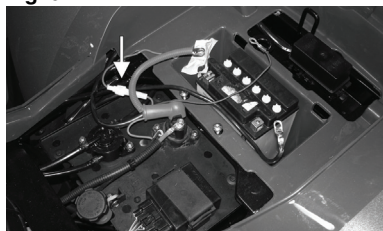


ATV-161

Wiring Instructions

1. Remove the two screws securing the battery cover. Disconnect the battery cables making sure to disconnect the negative cable first.
2. Route Wiring Harness (p/n 0409-086) from the battery under the right side of the body panel following the main ATV wiring harness toward the rear of the ATV. See Fig. 9 and 10.

Fig. 9



ATV-071

Fig. 10



ATV-072

3. Next to the right side of the taillight, route the harness up and along the bottom side of the rear rack toward the left side of the ATV. Follow the rack to the front left corner. See Fig. 11.

Fig. 11



ATV-067

4. With the switch installed in Switch Plate (p/n 0541-528), plug the red wire and black wire connectors to either of the two center terminals on the switch. Plug the red/white wire and black/white wire into the remaining two terminals. Secure harness with cable ties as needed.
5. Mount the plate on the rack using two Cap Screws (p/n 8408-816), Hex Nuts (p/n 8424-802), and Clamps (p/n 0423-594) provided.

■ **NOTE:** When mounting the plate to the rack, use the two center holes in the plate. Tighten securely. See Fig. 12.

Fig. 12



ATV-068

6. Connect the red and black power wires, along with the positive and negative cables, to the battery. Reinstall all remaining parts.

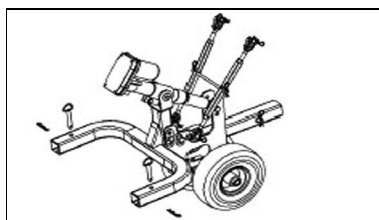
■ **NOTE:** After the harness has been connected to the 3-point hitch system, make sure the switch works in conjunction with the up/down decal. If it doesn't, simply loosen the switch and rotate it 180 degrees and secure.

7. The 3-point hitch has several possible adjustments that are available. The factory settings are the recommended positions of these adjustments. However, if an implement attached to the hitch is not performing to the desired level, this can be adjusted. Please refer to the Setup and Troubleshooting sections for each specific implement on instructions for adjustments.
8. The 3-point hitch is now installed and ready to be attached to an implement designed to fit the hitch. It is possible to maneuver the ATV with the installed hitch into position to attach an implement.

Setup and Operation of the Harrow

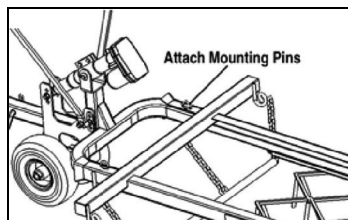
1. Remove the components from the shipping container; then check for any damage that may have occurred during shipping.
2. Maneuver the ATV with installed 3-point hitch into position for attaching the harrow.
3. Remove the two pins from the hitch and lower or raise the hitch with the electric actuator to level the hitch with the mounting channels of the harrow.
4. Back up the ATV so the holes on the channels line up with the holes on the hitch; then insert the pins provided and secure with the hitch pin clips.

Fig. 13



ATV-172

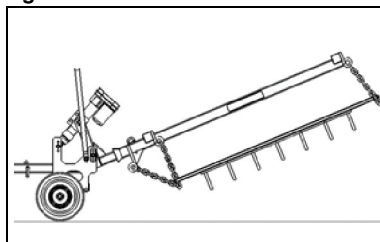
Fig. 14



ATV-101A

5. Lift the harrow with the actuator.

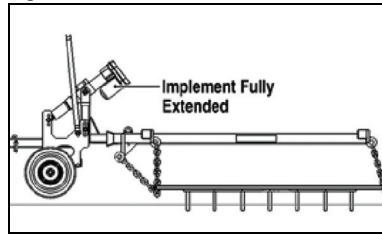
Fig. 15



ATV-102A

■ **NOTE:** When the harrow is lowered to the ground, the ATV must be in motion. The front of the harrow should make contact first. When engaging the harrow into the ground, the harrow will level out as the actuator is fully extended.

Fig. 16



ATV-103A

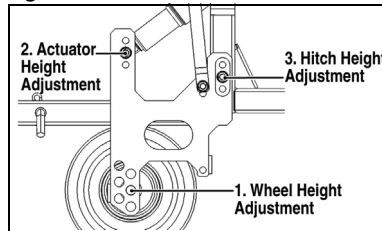
6. Please refer to the Troubleshooting section for any adjustments that might be deemed necessary after setup.

Adjustments

The following adjustments are possible if the harrow does not perform to a desired level. If unsure of what to adjust, please refer to the Troubleshooting section to help determine a solution.

1. Six positions for raising and lowering wheels (recommended position shown)
2. Three positions for raising and lowering the front of the actuator (center position recommended)
3. Three positions for raising and lowering the rear of the hitch (center position recommended)

Fig. 17



ATV-076B

The harrow might need to be adjusted further to the left side if the ATV cannot pull the harrow because of ground hardness or lack of traction. This will create easier pulling.

Transportation

WARNING

Exercise caution when transporting. Making abrupt turns can cause vehicle to overturn and cause bodily harm.

Raise the harrow as high as possible for transporting.

Avoid unnecessary injuries and equipment damage by exercising cautious, conscientious transport procedures. Driving over bumps at improper speeds will cause the implement to hit and scrape the ground.

Attaching the harrow to the ATV increases the overall length of the working implement. Allow additional clearance for the implement to swing when turning.

If the implement is too close to the ground or occasionally scrapes the ground while in transport, adjust the wheel height as necessary.

SERVICE

Maintenance

Periodically inspect for loose, damaged, or worn parts and adjust or replace as needed.

Periodically check all hardware on the hitch and harrow to ensure they are tight.

The wheels on the hitch require periodic lubrication.

When the harrow and hitch are not used for a period of time, it is recommended cleaning off any dirt to prevent rust.

Refer to the Service Parts section of this manual for replacement part numbers.

Storage

Thoroughly clean off any dirt prior to storage.

Store the harrow on a level location to ensure its stability and safety.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Poor soil penetration Poor performance.	Worn harrows	Replace harrows
	Wheels on hitch supporting too much weight	Move wheels up one level
Implement scraping ground while in transport.	Wheels on hitch not supporting enough weight	Move wheels down one level
	Actuator cannot retract far enough	Move front of actuator down one hole

HOW TO ORDER SERVICE PARTS

The Service Parts section contains the replacement part numbers of all components of the Speedpoint System and the attachment.

To obtain replacement parts, please contact your Arctic Cat ATV Dealer for service. When ordering parts, please have the following information on hand:

- Part number you are looking for.
- Model and serial number of the implement.
- Quantity required.

OWNER REGISTRATION

Write the appropriate information in the spaces below. Please keep this information for your own records.

Name _____

Address _____

City/Town _____

State/Prov _____

Mail Code _____

Model & Serial # _____

Date Sold _____

Delivery Checklist:

- ☐ Review the Arctic Cat Limited Warranty with customer.
- ☐ Review with the customer the Safe Operation and Service sections.
- ☐ Review with the customer the periodic lubrication and Maintenance.
- ☐ Review with the customer the daily and periodic inspections.
- ☐ Review with the customer the Service Parts availability.

Prior to delivery to the customer, do the following:

- ☐ Record the Serial Numbers for the Arctic Cat Products.
- ☐ Sign and remove this section for the dealer's record.
- ☐ Give the customer the Operator's Manual and encourage the customer to read the manual.

Date Delivered _____

Signature _____