

Description:	Quantum® Hardcoated Polycarbonate UTV Windshield, Wash'n'Wipe™ Full Size	Model:	Polaris RZR 1000, Round Tube
Part Number:	N30211	Installation Time:	60 min

Thank you for purchasing a National Cycle product. Read these instructions carefully and thoroughly before beginning work. Dealers, if installing this windshield for a customer, please give them this manual. It contains information needed to properly maintain and use this product.



Attention:
Special notes and cautionary measures which can prevent damage to the accessory or vehicle.



Note:
Tips for facilitation of operation, control and adjustment, as well as maintenance work.

PREPARATION

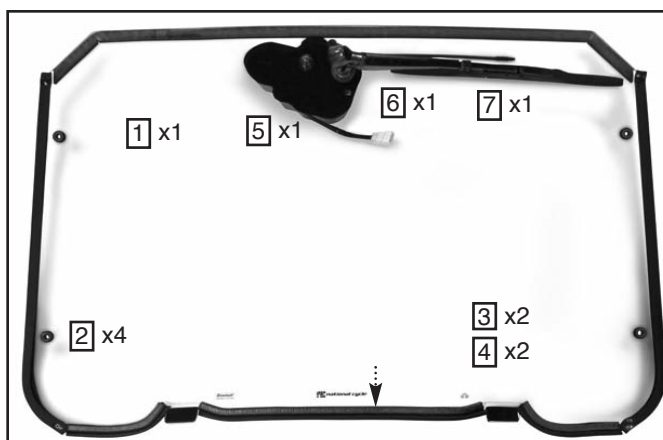
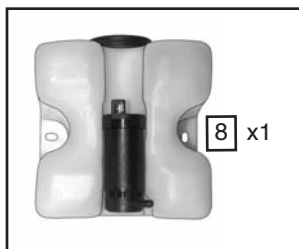
This Kit has been carefully packed and inspected at the factory. Report any missing part directly to National Cycle, Inc. along with the Bag No. and Date on outside of Windshield Carton.

Carefully unpack the windshield, sort the parts, and make sure you have everything required to complete the installation to the vehicle.

TOOL LIST

Flat Blade Screwdriver
T25 and T30 Torx Wrench
X-Acto® Knife, or similar
Marker
Wire Cutters
Power Drill with 3/4" (19mm) hole saw, or similar
Small Drill Bit (1/8") (3mm) for pilot hole
#2 or #3 Phillips Screw Driver or Phillips Bit for Drill

RESERVOIR



Parts Installed on Windscreen

Tools / Notes

Item	Part No.	Description	Qty.	Tools / Notes
1	20-290458-000	Windscreen with Trim	1	
2	44-447165-000	Grommets for Windshield	4	Installed on Windscreen
3	77-771156-001	Marine Grade Velcro, Hook	2	Installed on Windscreen
4	77-771155-001	Marine Grade Velcro, Loop	2	Installed on Windscreen
5	80-875150-000	Motor, Assembly	1	Installed on Windscreen
6	80-875151-000	Arm, Wiper Assembly, 9.84" (250mm)	1	Replacement Arm Part No. is N30910
7	80-875154-000	Blade, Wiper Assembly, 14" (355.6mm)	1	Replacement Blade Part No. is N30900
8	44-442523-000	Reservoir & Pump Assembly	1	
9	80-830326-000	Wire Harness	1	With Grommet and Switch, Page 2

Parts List Continues on Next Page

WIRE HARNESS

9 x1

c Pump Switch for Wash
Mounts to Dash Inside Cab

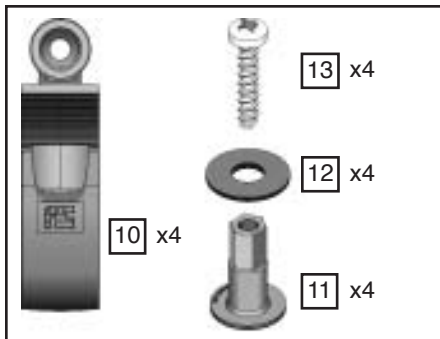
a Battery Connections Black-
Negative, Red-Positive

d Motor Connector and
Fluid Hose
Installs to Motor

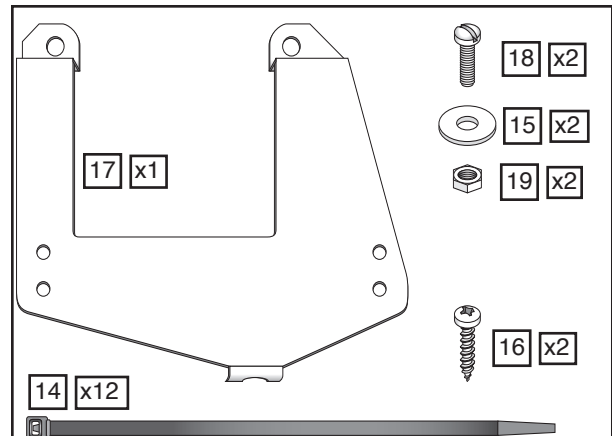
e Grommet,
Seals 3/4" Hole

b Pump Connector and Fluid Hose
Installs to Fluid Reservoir/Pump

BAG#1135



BAG#1184



Keep this page as a reference guide during the assembly process.

Parts Included in Kit

Tools Required

Item	Part No.	Description	Qty.	Notes and Tools
Bag#1135				
10	44-449370-000	Clamp, Wraparound	4	
11	44-449380-000	Retaining Pin	4	
12	49-490355-000	Washer, Flat, Black	4	
13	55-563131-000	Screw, Phillips, #12 x 1.25", SS	4	#2 or #3 Phillips Screw Driver
Bag#1184				
14	44-448726-000	Zip-Tie, Black	12	
15	49-490543-000	Washer, Flat .875 OD	2	
16	55-550260-000	Screw, Pan Head, 12 x .75	2	#2 or #3 Phillips Screw Driver
17	37-373685-000	Bracket, Tank Hanger	1	
18	55-562600-000	Screw, 10-32 x 5/8	2	Flat Blade Screw Driver
19	42-450024-000	Nut, Hex 10-32	2	



Figure 1

PREPARE THE VEHICLE FOR WIRING

REMOVE SEATS AND CENTER CONSOLE

1. Remove Seats.
2. Remove cap and handle from gear shifter.
Figure 1 (Flat Blade Screwdriver and T25 Torx)
3. Remove center console.
Figure 1 (T30 Torx)



Use two, thin Flat Blade Screwdrivers to pry-up plug in center console.



Figure 2

CUTTING THE PUMP SWITCH HOLE



The installation of the Pump Switch on this vehicle is in the recessed area of dash panel. Select your preferred location for the switch. Use care when cutting hole, avoid over cutting.

1. Scribe or draw a $17/32$ " x $1\ 1/8$ " (13.5mm x 28.5mm) guide in the desired location.

Figure 2

2. Using a drill, drill some holes in the plastic cover to serve as starting holes for cutting. Then use your X-Acto® knife to cut out the cover's face to the edges. DO NOT OVER CUT.

Figure 2

CUTTING THE PASSWAY $3/4$ " HOLE

1. On the hood of the vehicle close to the left frame post, measure a point 4" (101.6mm) from the back of the dash and 1.125" (28.5mm) from the side of the raised area where frame drops into dash. Mark that location for center of the drill hole.

Figure 3 (Marker)

2. Insert a step drill bit into your drill as shown (or $3/4$ hole saw) and drill a $3/4$ " (19mm) hole in the body cover at the location.

Figure 3 (Power Drill and $3/4$ " (19mm) Hole Saw)



Figure 3



Figure 4

PREPARE THE VEHICLE FOR WIRING, Continued

RELOCATE RELAY TO MAKE SPACE FOR FLUID RESERVOIR

1. Move to the hood compartment of vehicle. Remove the extra relay located on the fire wall to the left of the anti-freeze reservoir.

Figure 4 (Flat Blade Screwdriver)



The relay will release by slipping the screwdriver into the molded mounting and depressing a tab.

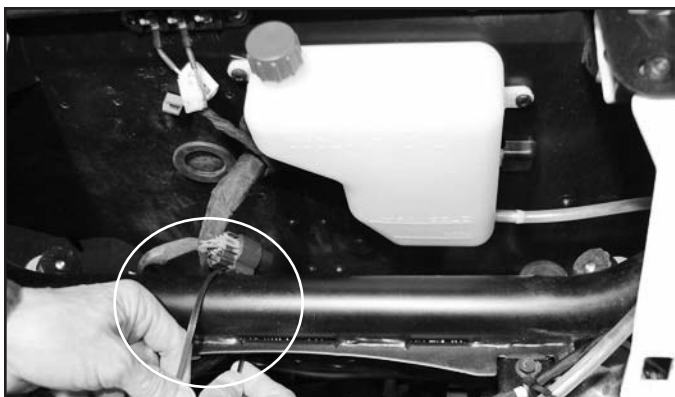


Figure 5

2. Relocate this relay to the cross-tube. Secure with a Zip-Tie, trim end.

Figure 5 (Wire Cutters)



Figure 6

3. Remove access plug from fire wall and slit to open.

Figure 6 (X-Acto knife)

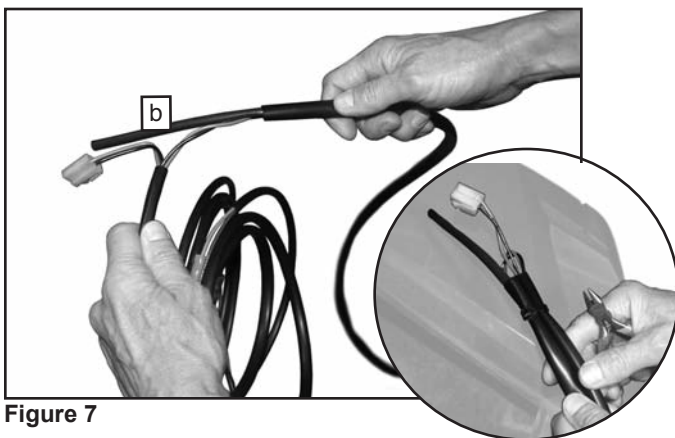


Figure 7

WIRE HARNESS ROUTING- PUMP CONNECTOR AND FLUID HOSE AND BATTERY TERMINUS

1. Place the Wire Harness in the passengers foot well.

2. Take Pump Connector and Fluid Hose section (b) of the Wire Harness and locate the terminus of the Rubber Hose and the Large Nylon 2-Pin Electrical Connector with red and black wires.

Figure 7

3. Fold the Pump Connector section against the Rubber Hose section, as shown. Secure the two sheaths with a Zip-Tie (14) and trim the excess tie.

Figure 7 (Wire Cutters)

WIRE HARNESS ROUTING - PUMP CONNECTOR AND FLUID HOSE AND BATTERY TERMINUS

1. For ease of routing, use a Zip-Tie (14) to temporarily secure the positive and negative ends together of Battery Terminus, section (a) of the Wire Harness.

Figure 8 Inset

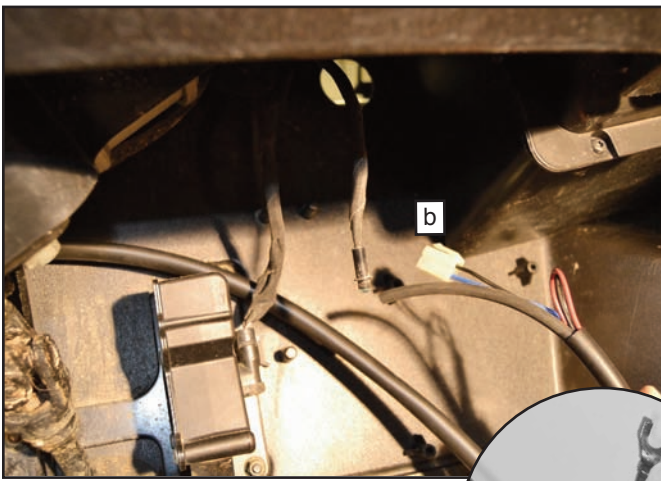
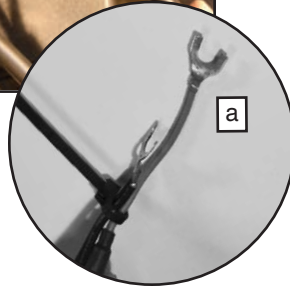


Figure 8



2. Route the Pump Connector (b) and Battery Terminus (a) section of the Wire Harness from inside the vehicle through the fire wall access hole.

Figure 8 and 9



Figure 9

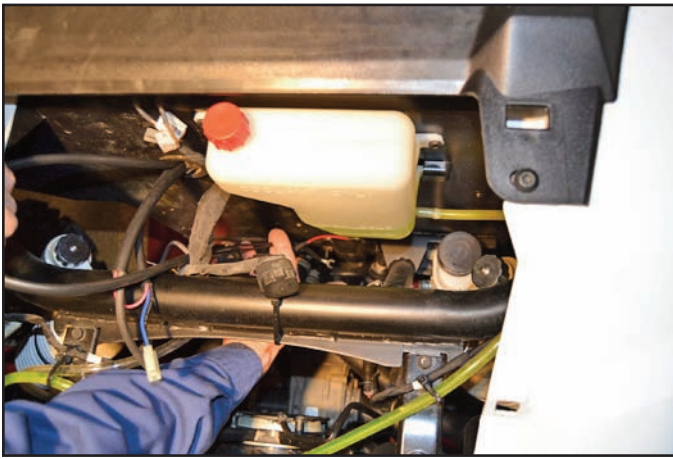


Figure 10

WIRE HARNESS INSTALLATION- BATTERY TERMINUS

1. Route the Battery terminus end (a) toward the console tunnel following the vehicles main wiring harness.

Figure 10



Figure 11

2. Continue to pull the Battery terminus section of the Wire Harness along the vehicle's main wiring harness to the battery compartment.

Figure 11-12



Do Not connect Wire Harness to battery at this time.



Figure 12

MOUNT RESERVOIR/PUMP ASSEMBLY

Move to under the hood.

The installation of the Reservoir on this vehicle is under the front hood above the area relay was removed from.

1. Use Screw (18), Washer (15) and Nut (19) to Mount the Bracket (17) to Fluid Reservoir (8) at 2 places.

Figure 13

2. Scribe or draw drill hole locators $\frac{3}{8}$ " below the crest of fold where fire wall drops vertically. Holes will be $3\frac{1}{4}$ " apart. Note the $\frac{1}{2}$ " clearance to bracket on the left.

Figure 14

3. Drill 2, $\frac{1}{8}$ " diameter holes in fire wall.

4. Connect the Rubber Hose to the bottom of the Reservoir's Electrical Pump.


Figure 15

5. Push the Nylon Quick-Connector onto the two pins on top of the Reservoir's Electrical Pump.

Figure 15

6. Mount Reservoir and bracket assembly to fire wall using the Pan Head Screw (16).

Figure 16

 Make sure the lower tab of the Reservoir Bracket contacts the outer flange of the access plug from Figure 6, not the actual Wire Harness.

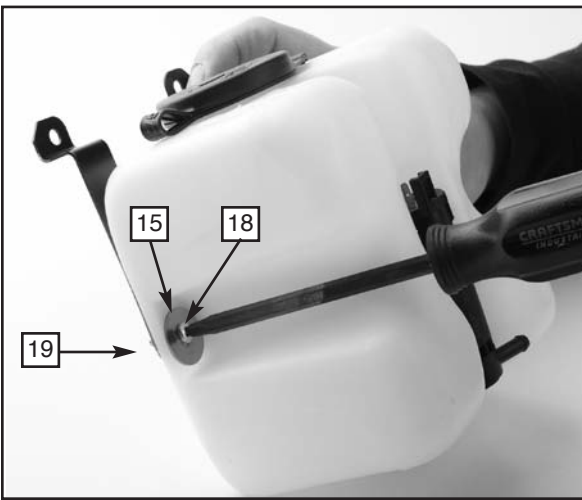


Figure 13

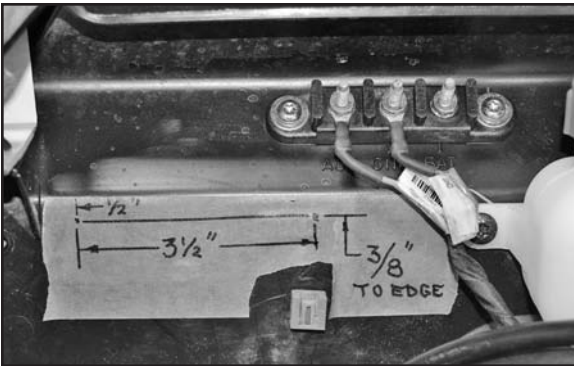


Figure 14

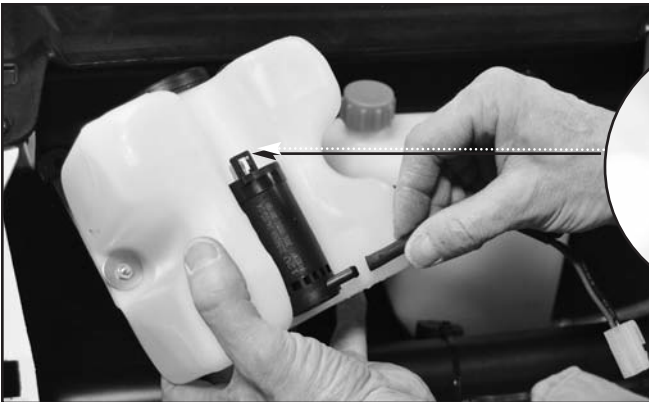


Figure 15



Figure 16

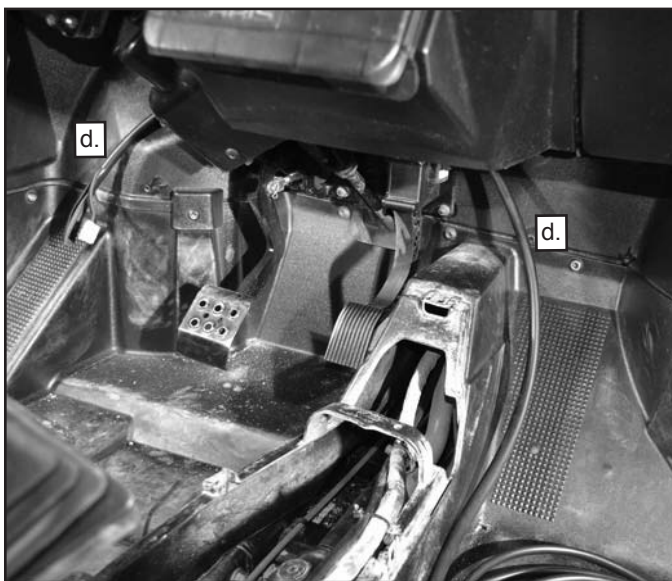
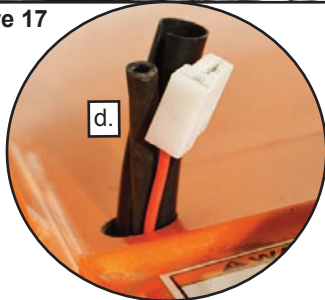


Figure 17



WIRE HARNESS INSTALLATION- MOTOR CONNECTOR AND FLUID HOSE

1. Route the Motor Connector and Fluid Hose section (d) of the Wire Harness over the steering column and thread it through the 3/4" (19mm) hole cut into the vehicle's body.

Figure 17

2. Use the 5/8" Rubber Grommet (e) attached to the wire harness to plug the hole.

Figure 17 inset

3. Follow the Frame Tube pulling enough length through the 3/4" (19mm) hole so terminus of Motor Connector (d) reaches 4-5" (10-12cm) past the half way point of the upper frame tube. This is where the Wash'N'Wipe Motor will be located.

Figure 17 inset



Figure 18

WIRE HARNESS INSTALLATION- ROCKER SWITCH TO DASH

1. Locate the section of Wire Harness (c) that terminates in the Pump Switch. Temporarily remove the Pump Switch and thread the wiring toward the hole you cut in the dash.

Figure 18

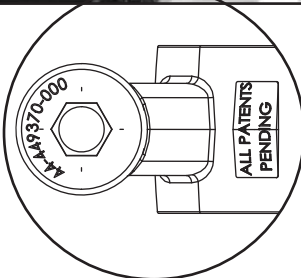
2. Thread the Wire End (c) through the hole. Reattach the Pump Switch to the two Nylon Pin Connectors (polarity doesn't matter) and then push the Pump Switch into the cutout.

Figure 18




Figure 19

Illustration A




WINDSHIELD INSTALLATION

 Place fasteners within reach of assembling clamps.

1. Snap the 4 Wraparound Clamps (10) on the frame of the vehicle.

Figure 19 and Illustration A

 Read these helpful tips for a smooth installation:

Note the hex shape of Retainer Pin (11), and mating Clamp (10) half.

While installing the windshield Clamps (10) in the next step, tuck Wire Harness between Clamp and Windshield.

Figure 20

Place Spacing Washer (12) between Grommets (2) and Clamps (10).

Illustration B

Start Machine Screws (13) but do not tighten.

The lower tabbed section of the Windshield should be touching the hood of the vehicle.

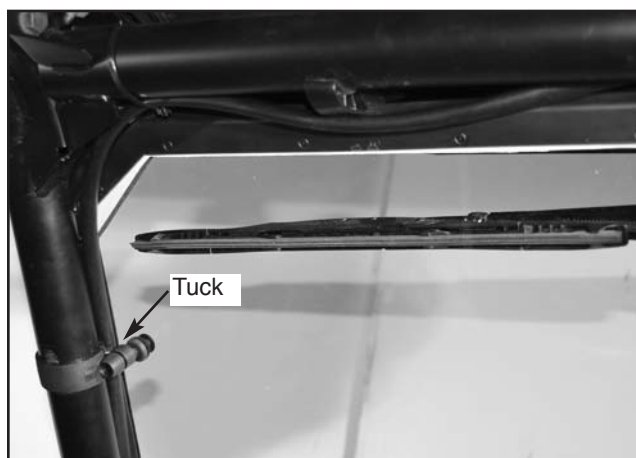


Figure 20

2. Place Windshield on hood, Using Screws (13) install Clamps (10), but do not fully tighten.

Figure 20 and Illustration B

(Phillips Screwdriver or Power Drill on low setting)

4. Check the alignment and position of the windshield and make sure it is even and symmetrical.

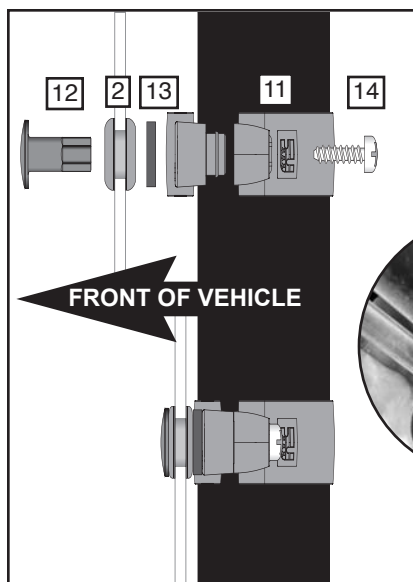
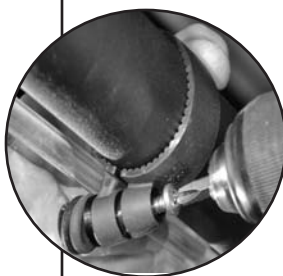


Illustration B

Right Side
Frame Tube



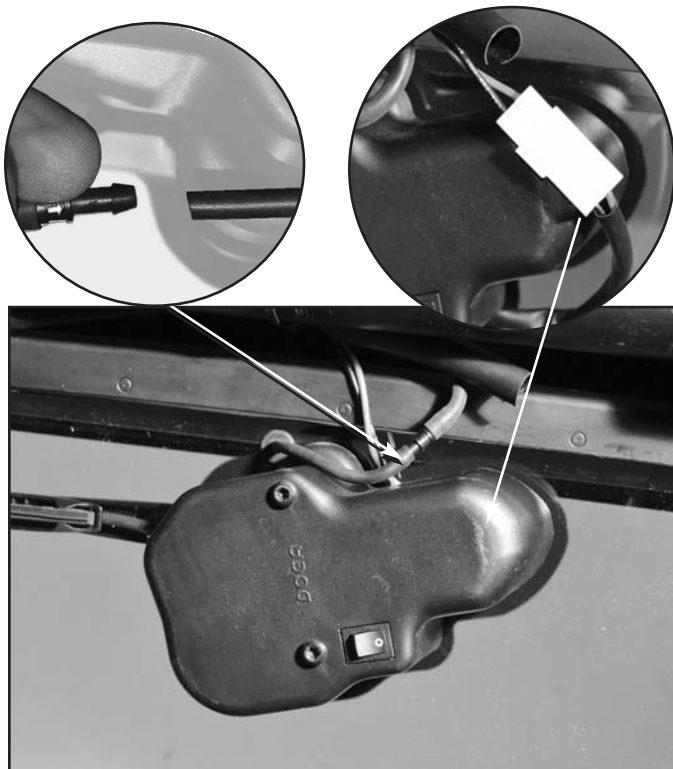


Figure 21

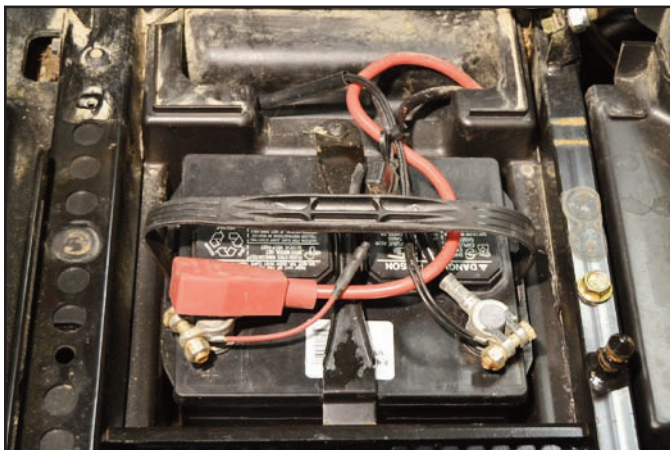


Figure 22



Figure 23

FINALIZE CONNECTIONS TO WIPER

1. Check that the Wiper Arm Fluid Hose is threaded through the Grommet in windshield. If it is not, do this now.

Figure 21

2. Connect the Wiper Motor Power and Fluid Hose.

Figure 21



A little moisture on the Fluid Hose end will make them join easier.

3. Tuck Motor Connector behind Motor assembly.

4. Completed Windshield Wiper Motor installation should appear as shown in Figure 21.

5. Adjust the Wire Harness position from the Wiper Motor to the grommet in the dash for a nice clean fit.

6. Securely tighten the Machine Screws (13) in all Wrap-around Clamps (10).

7. Remove the adhesive backing from the Velcro loop material and then press the windshield tab firmly onto the hood of the vehicle.

Figure 23

SECURE WIRE HARNESS THROUGHOUT VEHICLE

Use the Zip-Ties (14) to coil and secure the Wire Harness properly within the vehicle.

Do not leave loose Harness anywhere in the vehicle. Once Zip-Tie is tight, clip excess off end. (Wire Cutters)

A. SECURE at three locations to vehicle's main wire group inside front compartment.

B. Tighten and SECURE at three locations to vehicle's wire group along center floor of vehicle. Stay away from the drive shaft.

C. Coil and SECURE excess inside battery compartment.

CONNECT HARNESS TO BATTERY

1. Loosen the negative terminal nut of the vehicle's battery. with an Adjustable wrench. Slip the Brass Open Ring Connector under the negative terminal nut and tighten securely. Repeat for the positive terminal.

Figure 13 (Adjustable Wrench)

FINAL TIGHTENING and REINSTALLATION OF PARTS REMOVED FROM VEHICLE

1. Check that the Wire Harness is coiled and secured.
2. Reinstall the center console and seats.

FILL THE FLUID RESERVOIR

1. Fill the Reservoir (9) inside the vehicle's cab with plain water during warm weather and glycol-based automotive windshield washer fluid in freezing weather.
2. DO NOT run the pump dry. Minimum amount of fluid to maintain in the Reservoir is:

12 oz. (.35L) or to a depth of 1 1/2" (38mm)



Enjoy Your New Wash'n'Wipe™ Windshield!

WINDSHIELD WIPER OPERATION



The Wiper is intended for use with the wash cycle or during rain. DO NOT Wipe a dry windshield.

DO NOT run the Pump without fluid.

The Wiper Motor has a on/off Rocker Switch as shown. Turn the switch on and verify that the Wiper works as expected.

The dash panel Pump Switch installed controls the fluid spray. Momentarily hold the Switch in the on position to spray water from the Wiper Arm. It should spray in four separate directions.

WIPER ARM AND BLADE

Your Wash'n'Wipe Windshield is equipped with a quality silicone Wiper Blade. Replacement Wiper Blades are available from your local dealer or by contacting National Cycle.

Replacement Wiper Blade Part Number is N30900

Replacement Wiper Arm Part Number is N30910

REPLACING THE WIPER BLADE AND ARM

Join the end of the Wiper Arm (6) to the Wiper Blade (7). Place the J-hook of the Arm over the Blade's plastic mounting clip until it clicks and locks into place.

Figure 24

Swivel up the mount cover of the Wiper Arm as shown and then mount the Wiper Arm over the Motor's Spindle.

Figure 25

Once the Wiper Arm is on the Spindle, install the Internal Tooth Lock Washer and Small Mounting Nut. Use a torque wrench to tighten the Small Mounting Nut to 16 foot-pounds (22Nm). Then swivel the mount cover of the Wiper Arm back to its closed position.

Figure 26 (Torque Wrench)

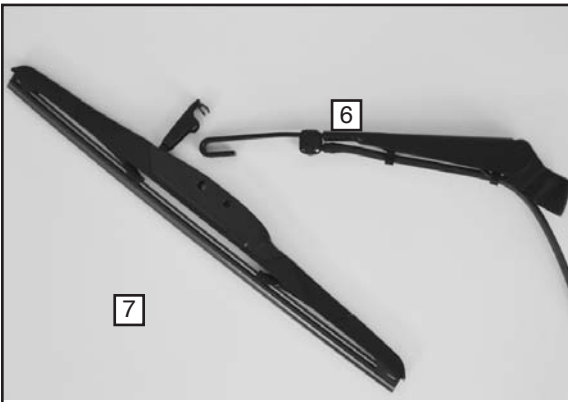


Figure 24



Figure 25



Figure 26



CLEANING AND MAINTENANCE

To clean the screen, wash with a clean soft cloth, plenty of warm water and if necessary, a non-abrasive soap such as dishwashing liquid. Flannel or soft chamois make good cleaning cloths. **Paint, glue residue or grease removal:** Moisten cotton with naphtha or turpentine followed by a wash as above.

National Cycle **Shield Wash™** (N1401-01) makes a good daily cleaner and comes with a handy travel size bottle. Shield Wash is safe for all windshields and helmet visors.

Do not clean polycarbonate in hot sun or high temperatures. Do not clean the screen with glass cleaners.

Do not allow brake fluid, alcohol, or strong solvents to contact the screen.

RAIN REPELLENT

Do not use rain protective products made for glass. We recommend National Cycle's **RainZip®** (N1410-01) to help shed water in rainy weather.



National Cycle's UTV Windshield 3-Year Limited Warranty

National Cycle hereby warrants to the original registered owner of a National Cycle polycarbonate windshield for a period of three years from the date of purchase against breakage. This limited warranty is expressly limited to the replacement of the polycarbonate windscreen. This limited warranty does not include scratches, coating failure, cosmetic wear and tear, replacement of hardware, or any consequential damages or expenses including

labor cost of installation, removal and/or replacement, inconvenience, inbound or replacement outbound freight expenses (outbound freight must be paid in advance by cc or check) or damage to any other component of the vehicle or any other accessories. Certain chemicals, generally known as acidic hydrocarbons, are known to cause polycarbonate damage and will not be covered under this limited warranty. Please refer to the cleaning instructions supplied with your UTV Windshield.

⚠ WARNING

Never operate your vehicle with loose accessory mounting hardware. Check the hardware for tightness regularly.

UTVs are built with enough frame rigidity to withstand the moderate loads imposed on them by the foreseeable addition of an accessory(ies). If an accessory(ies) adversely affects your vehicle's stability, immediately remove the accessory(ies). Do not operate a vehicle that exhibits unsafe handling traits.

Have experienced service personnel correct any problem before driving with the accessory(ies) installed. For further questions concerning handling problems associated with an accessory(ies), contact your dealer, UTV manufacturer, or accessory manufacturer.

CAUTION: Do not clean polycarbonate in hot sun or high temperatures. Do not clean the screen with glass cleaners. Certain chemicals, generally known as acidic hydrocarbons, are known to cause polycarbonate damage. Do not allow brake fluid, alcohol, or strong solvents to contact the screen.

CAUTION: Do not use rain protective products made for glass. We recommend National Cycle's **RainZip®** (N1410-01) to help shed water in rainy weather.

CAUTION: Always face windshield forward (in direction of travel) while carrying on truck or trailer.

Find out more about windshields & fairings we have.