

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 upon completion. It contains information needed to properly maintain and use this product.

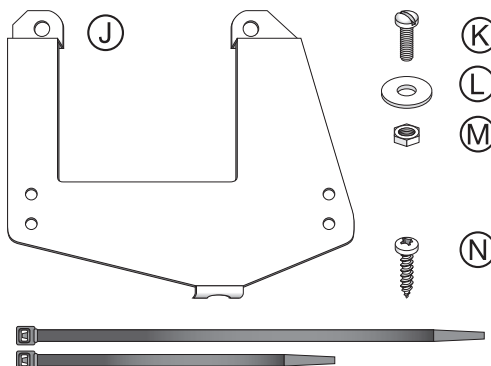
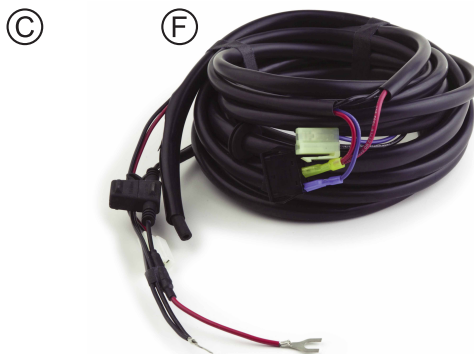
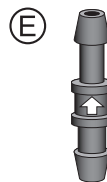
Description:	Wash'n'Wipe Kit for N30215 Full Size Windshield	Model:	Polaris® RZR 900/1000XP Round Tube
Part Number:	N30215-WK	Installation Time:	60-90 min.

### N30215-WK PARTS LIST

ITEM	PART NO.	DESCRIPTION	QUANTITY	TOOLS REQUIRED FOR ASSEMBLY
A	80-875150-000	Wiper Motor Assembly with Switch	1	Flat Blade Screwdriver
B	80-875151-000	Wiper Assembly Arm, 250mm (9.85")	1	#2 or #3 Phillips Screwdriver or Phillips Bit for Drill
C	80-875154-000	Wiper Assembly Blade, 350mm (13.78")	1	T-25 and T-30 Torx Wrenches
D	44-447167-000	Rubber Grommet	1	3/8" Wrench or Socket
E	44-441927-000	Inline Check Valve for Washer Tubing	1	10mm Wrench
F	80-830326-000	Wire Harness and Switch	1	13mm Socket
G	80-875156-000	Spindle Hardware Kit	1	Metal Scribe or Marker
H	80-875157-000	M8 Stud Hardware Kit	1	X-Acto® Knife, or similar
I	44-442523-000	Reservoir & Pump Assembly	1	Wire Cutters
	44-448710-000	Wire Tie, 11.00"	2	Power Drill with 3/4" (19mm) hole saw or step drill bit
	44-448726-000	Wire Tie, 07.50"	2	Small Drill Bits (1/16" or 3/32", 1/8") for pilot holes
			10	Torque Wrench

### BAG#1184

J	37-373685-000	Reservoir Mounting Bracket	1
K	55-562600-000	Machine Screw, Panhead, Slotted, 10-32 x 5/8	2
L	49-490543-000	Flat Washer, .253 x .875 x .05	2
M	42-450024-000	Nylok Hex Nut, 10-32	2
N	55-550260-000	Machine Screw, Phillips, 12 x .75	2



## PREPARATION

Carefully unpack your Wash'n'Wipe™ Kit, sort the parts, and make sure you have everything required to complete the assembly.



**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.

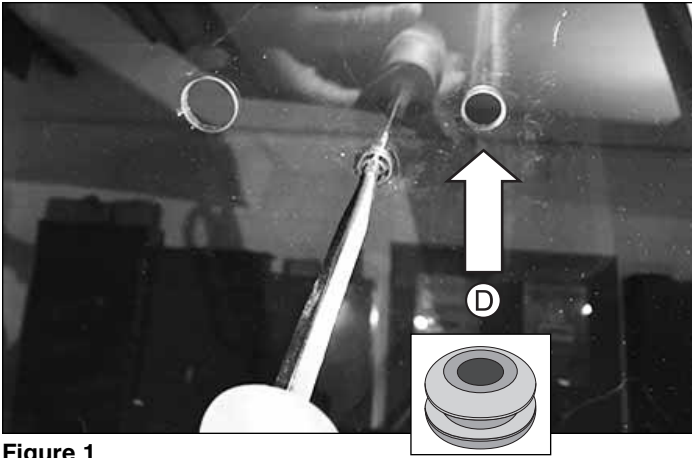


Figure 1

## INSTALL THE WIPER MOTOR

It is recommended that you begin by removing the existing N30215 Windshield prior to installing the Wiper Motor.

### Figure 1

From the inside of the Windshield, push out the three Plugs in the top center of Windshield. (*Any Conveniently Pointed Tool*)

Install Grommet (D) into the far right hole as shown.

### Figure 2

Loosen and remove the Panhead Philip Screws from the seven Wraparound Clamps securing Windshield to the vehicle frame.

Loosen the Velcro® on the bottom section and carefully remove the Windshield, making sure you don't lose the the seven Retaining Pins, five Spacing Washers or the two cable guides. Place the Windshield on the floor away from the vehicle.

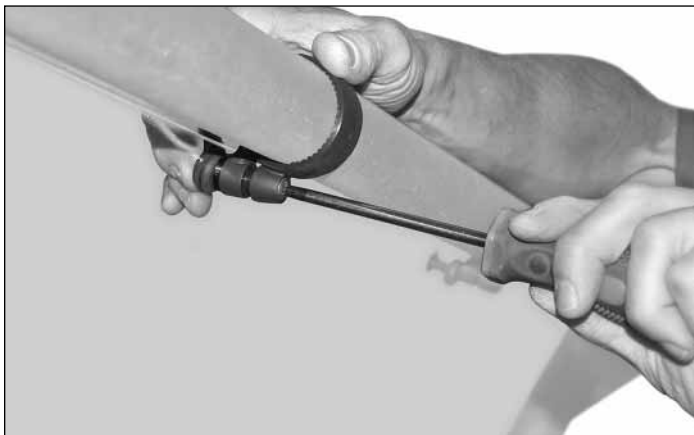


Figure 2

### Illustration A

Open the Spindle Hardware Kit (G) and M8 Stud Hardware Kit (H) and lay out the parts in order.



Note: The rubber washers will go against both inside and outside of the Windshield.

Onto the Stud and Spindle of the Wiper Motor, assemble the parts that go to the inside of the Windshield as shown between the motor and the silkscreened motor outline.

### Illustration B (next page)

Hold the Wiper Motor up to the inside of the Windshield and insert the wiper motor Stud and Spindle through the holes in the Windshield per the diagram, and assemble the remaining kit hardware located outside of the Windshield.

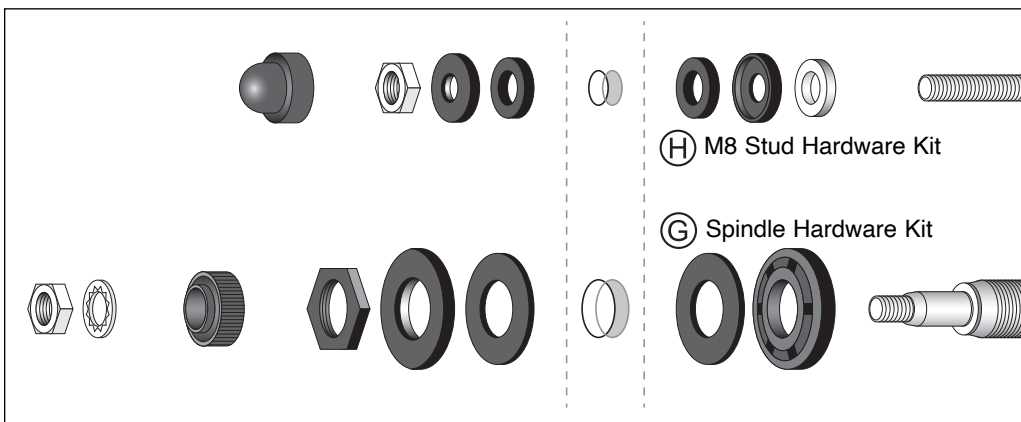


Illustration A

The nut on the stud (smaller) shaft needs to be torqued to 3 ft-lbs. (4 N-m). (*13mm Socket, Torque Wrench*)

The nut on the spindle (larger) shaft needs to be torqued to 4.5 ft-lbs. (6 N-m). (*13mm Socket, Torque Wrench*)

## WIPER MOTOR ASSEMBLY DIAGRAM

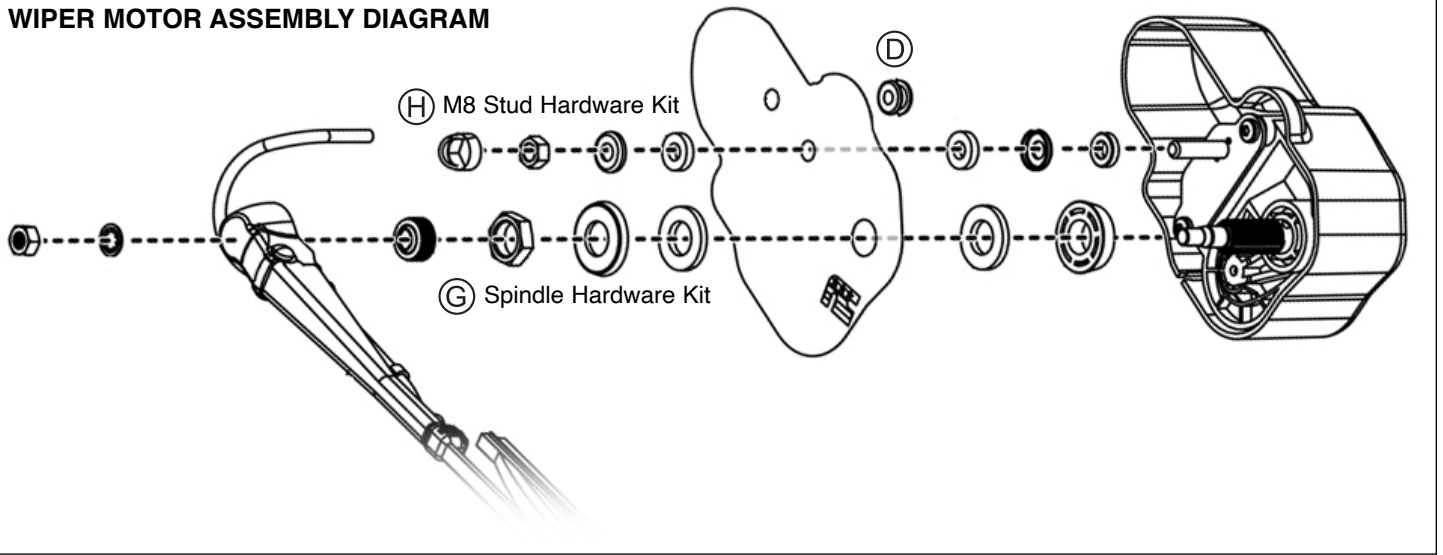


Illustration B

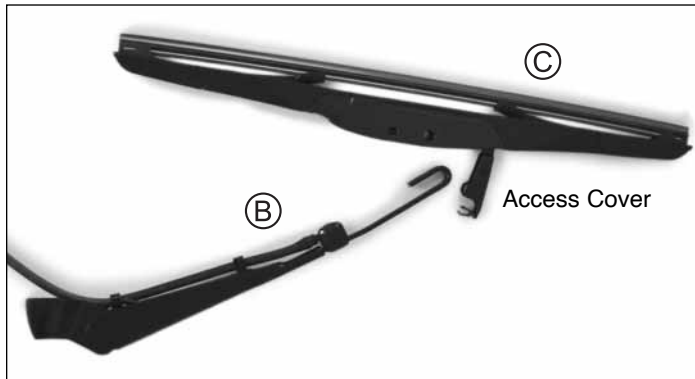


Figure 3

## INSTALL THE WIPER ARM

### Figure 3

Open the small access cover on the Wiper Blade (C). Place the J-hook of the Wiper Arm (B) over the Blade's plastic mounting clip until it clicks and locks into place. Close the small access cover.

### Figure 4

Open the access cover of the Wiper Arm as shown.

Assemble the Wiper Arm onto the Wiper Motor Spindle so that it is horizontal on the driver's side, then install its lock washer and nut as shown in Illustration B.



Figure 4

Hold the Wiper Arm horizontal while tightening the nut. Torque to 16 ft-lbs. (22 N-m). (*Torque Wrench*)

Close the Wiper Arm cover over the nut.

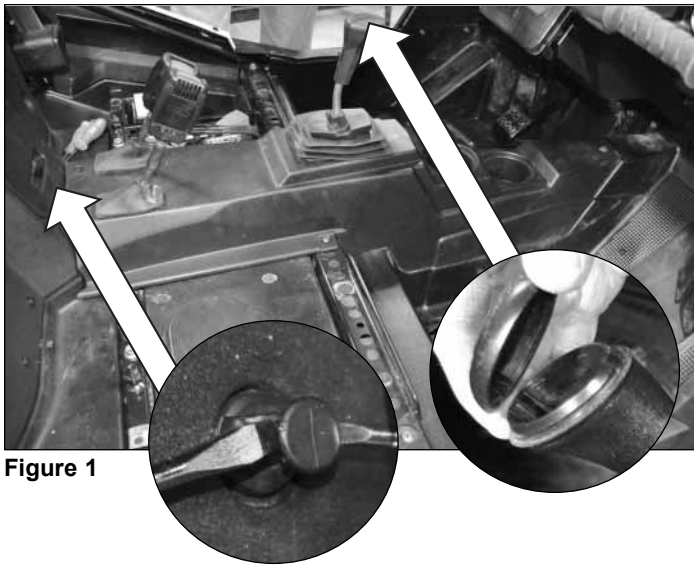


Figure 1

## PREPARE THE VEHICLE FOR WIRING

### Figure 1

Remove seats, then remove center console. Press seat belts and shifter boots through holes in the center console.  
(T30 Torx)



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

## CUTTING THE PUMP SWITCH HOLE

### Figure 2

The installation of the Pump Switch on this vehicle is in the recessed area of the dash panel. Select your preferred location for the switch as indicated in Figure 2.

Scribe or draw a 17/32" x 1-1/8" (13.5mm x 28.5mm) guide as shown.

Using a power drill, drill a series of holes in the plastic cover as starting guides for cutting.

(Power Drill and Bit for pilot holes)

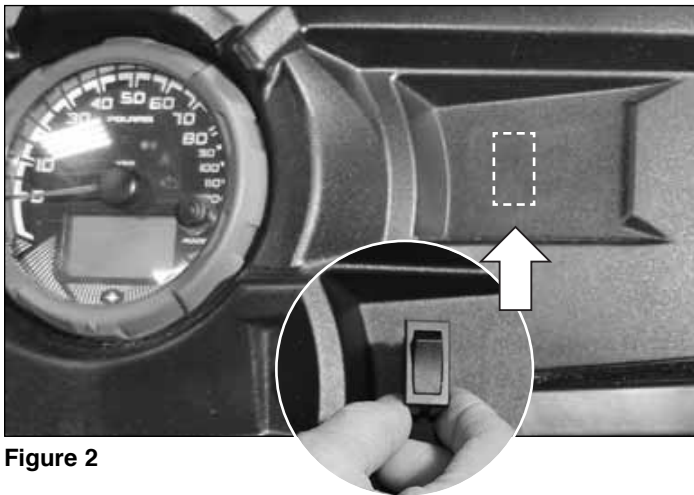


Figure 2

### Figure 3

Then use an X-Acto® knife to cut out the cover's face to the scribed edges shown.

(X-Acto Knife)



Use care when cutting the hole to avoid overcutting, and to avoid possible injury.

## CUTTING THE WIRE HARNESS PASSAGE HOLE

### Figure 4

On the hood of the vehicle close to the left frame post, measure a point 4.0" (102mm) from the back of the dash and 1.125" (29mm) from the side of the raised area where the frame drops into the dash. Mark that location for the center of the drill hole.

Insert a 3/4" (19mm) Hole Saw into your Power Drill as shown and drill a 3/4" hole in the body cover at the marked location.

(Power Drill and 3/4" Hole Saw)

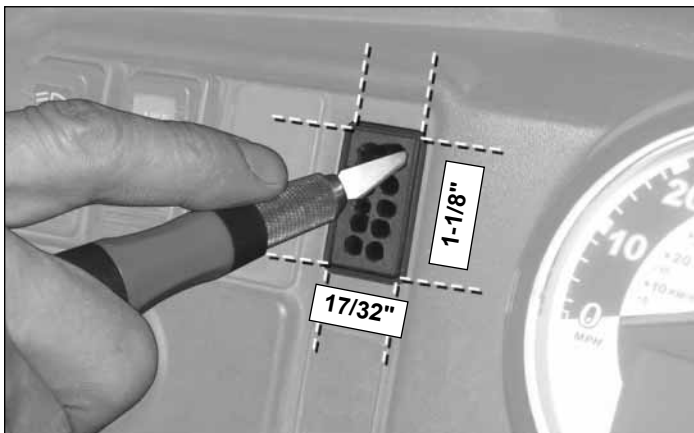


Figure 3

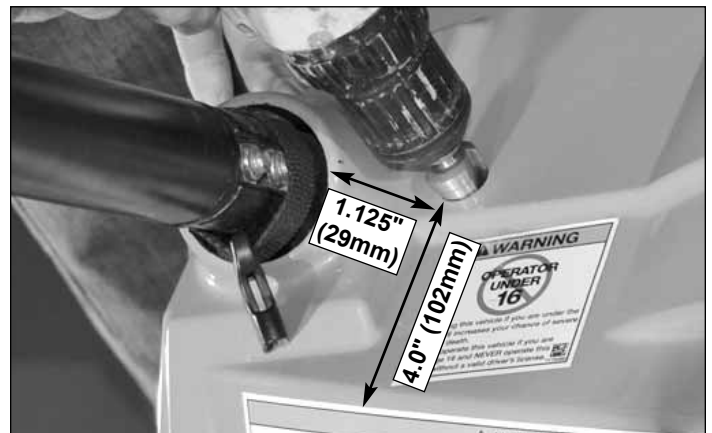


Figure 4





Figure 5

**PREPARE THE VEHICLE FOR WIRING; CONT'D**  
**RELOCATE EXTRA WIRING RELAY**

**Figure 5**

Move to the hood compartment of vehicle. To make space for the Wash'n'Wipe Fluid Reservoir (I), remove the extra relay located on the firewall to the left of the antifreeze reservoir (Flat Blade Screwdriver)

**Figure 6**

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



Note: The existing wires are upward when locating the tab.

Relocate this relay to the cross-tube with the wire end facing down. Secure with a included Wire Tie and trim the excess wire tie end. (Flat Blade Screwdriver, Wire Cutters)

**Figure 7**

Remove the access plug from firewall and slit to open. Then reinstall it into the firewall (X-Acto Knife)



Use care when cutting avoid overcutting and to avoid possible injury.

**PUMP CONNECTOR AND FLUID HOSE PREPARATION**

**Figure 8**

Take Pump Quick Connector Terminal IV of the Wire Harness and locate the end of the Rubber Hose and the Large Nylon 2-Pin Electrical Quick-Connector with red and black wires.



See Illustration C: "WIRE HARNESS REFERENCE POINTS" on next page.

Take the Quick-Connector section and fold it against the Rubber Hose section as shown. Secure the two sheaths with a 7.5" Wire Tie and trim the excess wire tie end. (Wire Cutters)

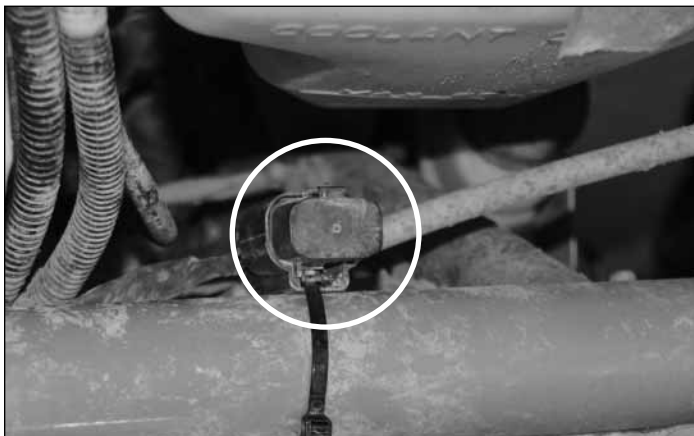


Figure 6



Figure 7

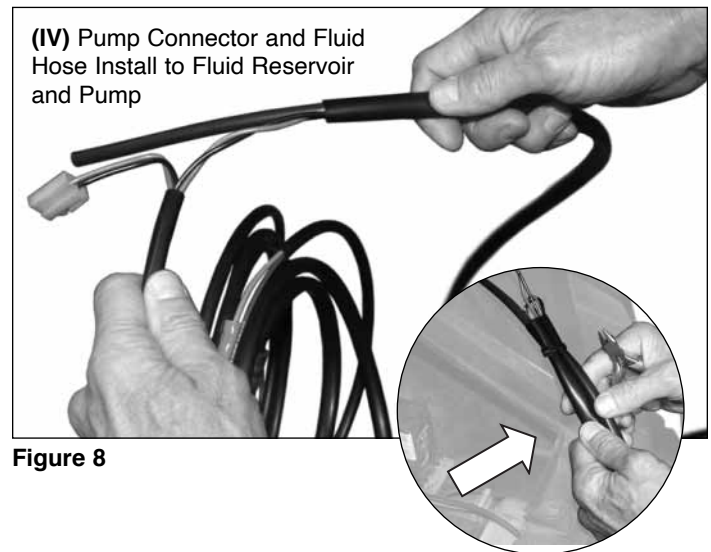


Figure 8

**WIRE HARNESS REFERENCE POINTS**

**(I)** Motor Connector and Fluid Hose  
Installs to Motor

**(II)** Grommet  
Seals 3/4" Hole

**(III)** Pump Switch for Washer  
Mounts to Dash Inside Cab

**(V)** Battery Connections:  
Black-Negative  
Red-Positive

**(IV)** Pump Connector and Fluid Hose  
Install to Fluid Reservoir and Pump

Illustration C

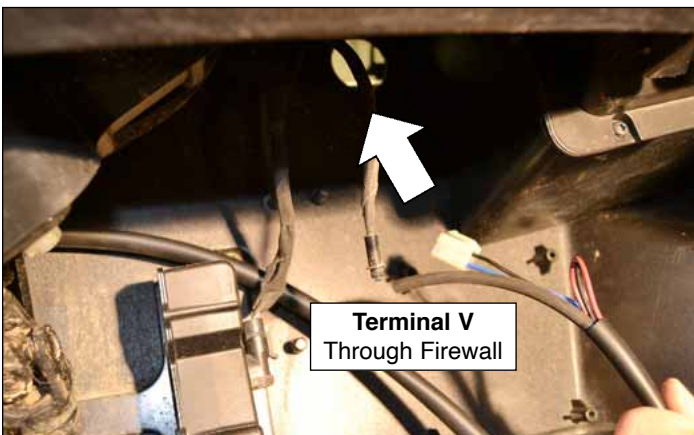
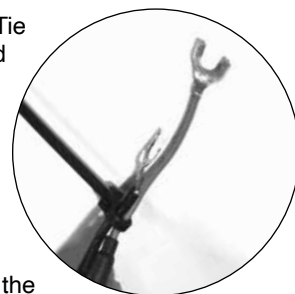


Figure 9

**PREPARE THE VEHICLE FOR WIRING; CONT'D**  
**PUMP CONNECTOR/FLUID HOSE AND BATTERY TERMINAL ROUTING**

**Figure 9**

For ease of routing, use a 7.5" Wire Tie to temporarily secure the positive and negative ends of Battery Terminals V of the Wire Harness together.



**Figure 9-10**

Route the Pump Connector/Fluid Hose Terminal IV and Battery Terminal V of the Wire Harness from the passenger's foot well through the firewall access hole that was slit in Figure 7.

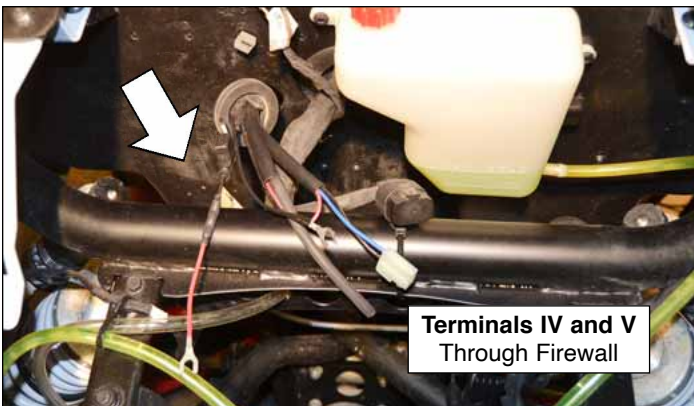


Figure 10

**PREPARE THE VEHICLE FOR WIRING; CONT'D**  
**BATTERY TERMINAL ROUTING**



**Figure 11**

**Figure 11**

Route the Wire Harness Terminal **V** ends toward the console tunnel following the vehicle's main wiring harness.

**Figure 12-13**

Continue to pull the Terminal **V** section of the Wire Harness along the vehicle's main wiring harness path to the vehicle's battery compartment.



**DO NOT** connect Wire Harness Terminal **V** to the battery at this time.



**Figure 12**



**Figure 13**



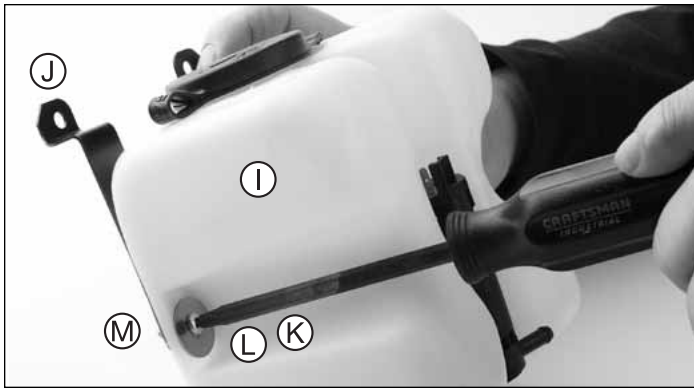


Figure 14

## MOUNT RESERVOIR/PUMP ASSEMBLY

Move to under the vehicle's hood.

The installation of the Reservoir on this vehicle is under the front hood above the area where the extra wiring relay was removed and relocated in Figures 5-6.

### Figure 14

Use Panhead Machine Screws (K), Washers (L) and Nylock Hex Nuts (M) to mount the Reservoir Bracket (J) to the Fluid Reservoir (I) on both sides.  
(Flat Blade Screwdriver, 3/8" Wrench or Socket)

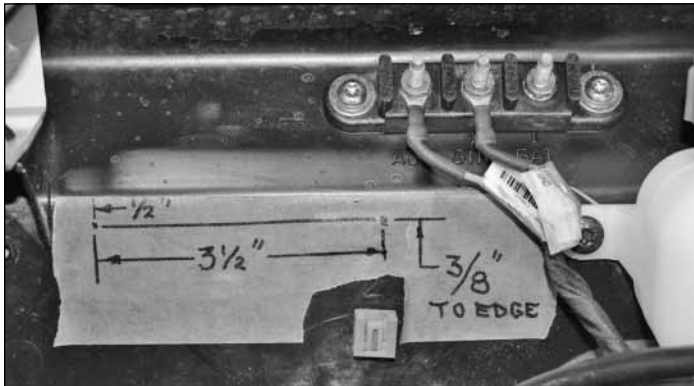


Figure 15

### Figure 15

Scribe or draw drill hole locators 3/8" below the crest of the fold where the firewall drops vertically. Holes will be 3-1/2" apart. Note the 1/2" clearance to the bracket on the left.

Drill two 1/8" diameter holes into the drill hole locations on the firewall. (Power Drill, 1/8" Bit)

### Figure 16

Connect the Rubber Hose (Terminal I) to the bottom of the Reservoir's Electrical Pump.




Push the Nylon Quick-Connector (Terminal I) onto the two pins on top of the Reservoir's Electrical Pump.



Figure 16

### Figure 17

Mount the Reservoir and Bracket assembly to the firewall using two Phillips Machine Screws (N).  
(Phillips Screwdriver)

 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.

## FILL THE FLUID RESERVOIR AND PLACE INTO BRACKET

Fill the Reservoir (I) with plain water during warm weather, and glycol-based automotive windshield washer fluid in freezing weather.



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).

Minimum Depth: 1-1/2" -----

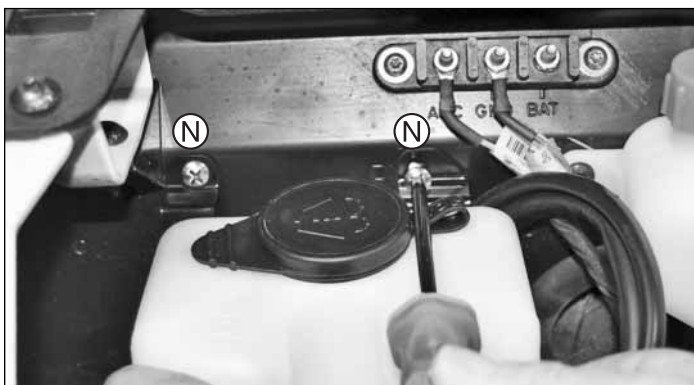


Figure 17



**WIRE HARNESS INSTALLATION; CONT'D**  
**MOTOR CONNECTOR AND FLUID HOSE**

**Figure 18**

Route the Motor Connector and Fluid Hose Terminal I of the Wire Harness over the steering column.

**Figure 19**

Thread it through the 3/4" (19mm) hole cut into the vehicle's body in Figure 4.

Use the 5/8" Rubber Grommet II attached to that Wire Harness to seal the hole.

**Figure 20**

Follow the vehicle's frame tubing while pulling enough length of Terminal I wiring through the 3/4" hole so that the Terminal I reaches 4.0-5.0" (10-12cm) past the half-way point of the upper frame tube. This is where the Wash'n'Wipe Motor will be located.

**INSTALL ROCKER SWITCH TO DASH**

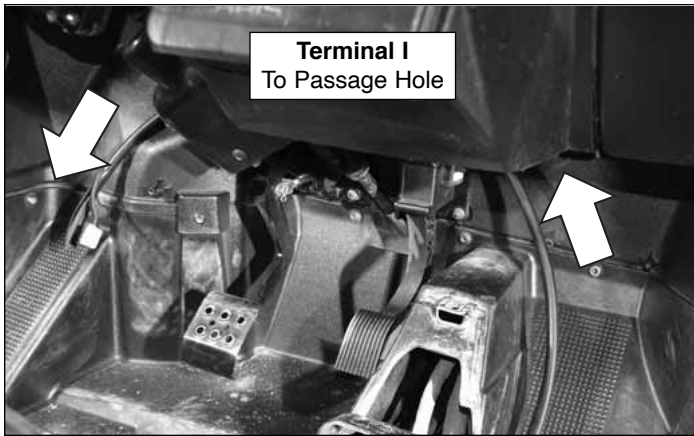
**Figure 21**

Locate the section of Wire Harness Terminal III that tends in the Pump Switch. Temporarily remove the Pump Switch from the two Nylon Pin Connectors and thread the wiring through the hole you cut into the dash panel in Figures 2-3.

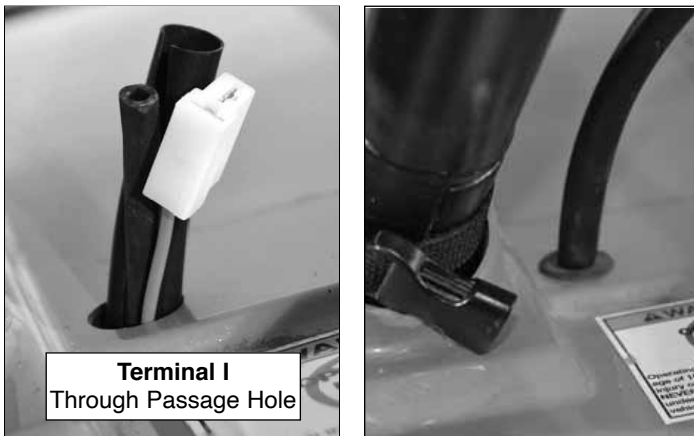
Reattach the Pump Switch to the two Nylon Pin Connectors (polarity doesn't matter) and then push the Pump Switch into the dash panel cutout.



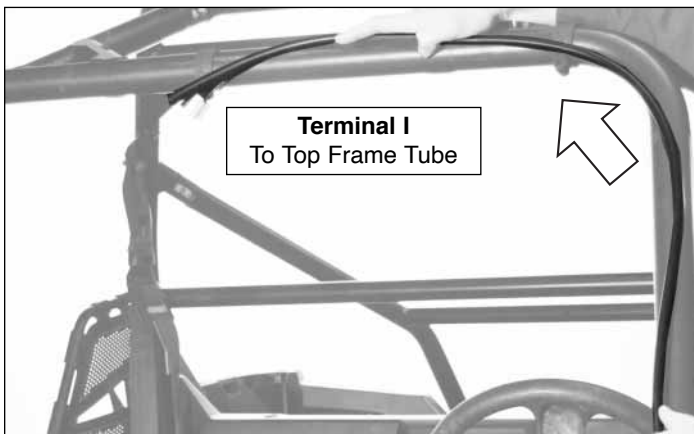
**Figure 21**



**Figure 18**



**Figure 19**



**Figure 20**



Figure 22



Figure 23



Figure 24

## REINSTALL THE VEHICLE WINDSHIELD



Follow the installation guide in **Windshield Installation Instruction Sheet 10-118028-000.pdf**.

Need the instructions? Go to [www.nationalcycle.com](http://www.nationalcycle.com) and insert **N30215** into the search box on the top right of the home page. Click the product listing, then click on the *N30215 Installation Instructions PDF link*.

### Figure 22

Pull enough harness length through passage hole so that Terminal I follows the vehicle's frame to the top center where Wiper Motor will be installed.

### Figure 23

On the driver's side, route harness wiring/fluid hose underneath Windshield (inside of cab) but over the two side Wraparound Clamps as shown.

At the top of the vehicle frame, route the harness wiring/fluid hose through the two Cable Clamps attached to the back of the top driver-side and top center Wraparound Clamps.

## TERMINAL CONNECTIONS TO WIPER MOTOR

### Figure 24

Check that the Wiper Arm Fluid Hose is threaded through the Grommet (D) in the Windshield to the inside of the cabin. If it is not, do this now.

### Figure 25

Connect the Wiper Arm Fluid Hose to the fluid hose from Wiring Harness Terminal I with the Inline Check Valve (E). A little moisture on the Check Valve ends will make the hoses join easier.



The arrow on the Inline Check Valve (E) must point towards the Wiper Motor, not towards the Fluid Reservoir.

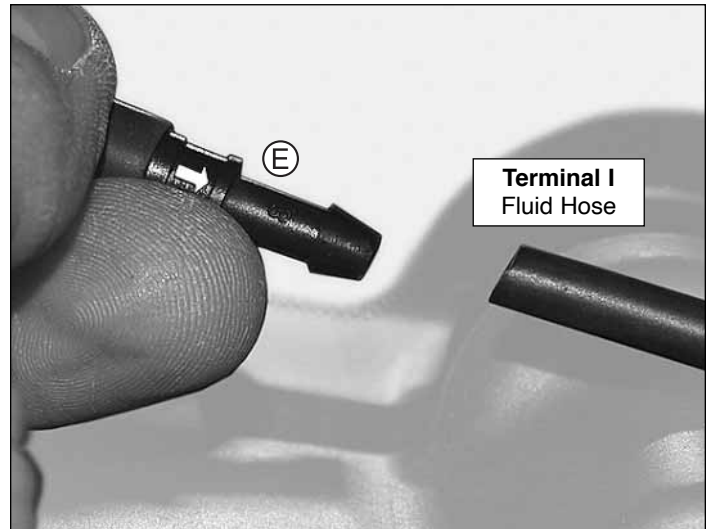


Figure 25



Figure 26



Figure 27



Figure 28

**WIRE HARNESS INSTALLATION; CONT'D**  
**TERMINAL CONNECTIONS TO WIPER MOTOR; CONT'D.**

**Figure 26**

Join the power connectors from the Wiper Motor and from Terminal I.

Tuck excess wiring behind the Wiper Motor assembly.

**Figure 27**

The completed Wiper Motor installation should appear as shown.

**CONNECTIONS TO BATTERY TERMINALS**

**Figure 28**

Locate the Battery Terminal V on the Wiring Harness from Figures 12-13.

Loosen the negative terminal nut of the vehicle's battery. Slip the brass open ring connector on the black wire of Terminal V under the negative terminal nut and re-tighten securely.

Repeat for the red wire of Terminal V to the battery's positive terminal. (10mm or Adjustable Wrench)

**COIL AND EXCESS WIRE HARNESS**

Use 7.5" Wire Ties to secure the Wiring Harness to the top frame tube of vehicle.

Use additional Wire Ties to coil and secure the Wire Harness properly within the vehicle.

Do not leave loose or excess Harness wiring anywhere in the vehicle. Once Wire Ties are tight, clip off excess Wire Tie ends. (Wire Cutters)

- SECURE at three locations to vehicle's main wire group
- Tighten and SECURE at three locations to vehicle's wire group along center floor of vehicle. Stay away from the drive shaft.
- Coil and SECURE excess inside the battery compartment.

**FINAL TIGHTENING AND REINSTALLATION OF PARTS REMOVED FROM VEHICLE**

Check that the Wire Harness is coiled and secured. Check that all parts removed and reinstalled are tight and secure.

Reinstall the center console and the seats.

**Please refer to Page 12-13 for operation, replacement parts and warranty.**

**Enjoy Your New Wash'n'Wipe™ Windshield!**





Figure 29

## WINDSHIELD WIPER OPERATION



The Wiper is intended for use with the wash cycle or during rain. **DO NOT** use the Wiper on a dry windshield. **DO NOT** run the Pump without fluid.

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

The newly installed dash panel Rocker Switch 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.

The four spray jets can be manually (but carefully) redirected.

## 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 WIPER ARM

### Figure 29

Open the small access cover on the Wiper Blade (C) and pull the blade towards the motor end of Wiper Arm to loosen blade.

To install a new Wiper Blade, join the end of the Wiper Arm (B) to the Wiper Blade. Place the J-hook of the Arm over the Blade's plastic mounting clip until it clicks and locks into place. Close the small access cover.

### Figure 30

To remove the Wiper Arm (B), open the Wiper Arm cover and remove the Internal Tooth Lock Washer and Small Mounting Nut (Spindle Hardware Kit G). Then remove the Wiper Arm from the Wiper Motor (A) Spindle.

To replace the Wiper Arm back on the Spindle, reinstall the Internal Tooth Lock Washer and Small Mounting Nut.

### Figure 31

Use a torque wrench to tighten the Small Mounting Nut to 16 ft-lbs. (22 N-m). Then swivel the mount cover of the Wiper Arm back to its closed position. (13mm Socket, Torque Wrench)



Figure 30



Figure 31



Ask for Shield Wash™ and RainZip® at your local dealer or visit [www.nationalcycle.com](http://www.nationalcycle.com).

## CLEANING AND MAINTENANCE

To clean your windshield, wash with a clean soft cloth and plenty of warm water and, if necessary, a non-abrasive soap such as dishwashing liquid. Flannel or soft chambrais make good cleaning cloths. **Paint, glue residue or grease removal:** Moisten cotton wad 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 household glass cleaners.

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

## RAIN REPELLENT

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



### National Cycle 3-Year Limited Warranty

Register Your Windshield Online at [www.nationalcycle.com](http://www.nationalcycle.com)

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 freight expenses 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 all National Cycle windshields. Visit [www.nationalcycle.com](http://www.nationalcycle.com) for further details or call or write National Cycle Inc.

## 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.