

# **360 SPRINT**<sup>™</sup>

# UPGRADE KIT INSTALLATION INSTRUCTIONS

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# **BEFORE YOU BEGIN...**



Prior to installation, flush the liquid system with fresh water and drain the tank, depressurize the air tank, and disconnect the battery harness from the main SPRINT harness.

NOTE: This installation was done on an 835 cabbed gator. If you are running another model the location of some parts and connections may vary from the pictures provided.

### STEP 1 REPLACE WINCH



**STEP 1 CONTINUED** 

**REPLACE WINCH** 

Using a 5/16" socket, loosen the clamp securing the liquid supply line **1**. Take the clamp off and pull the hose back out of the way.

Disconnect the air supply line connection 2 by pushing in on the push-to-connect and pulling back on the airline.

Disconnect the connection with the winch by removing the two clips (one at the top and one at the bottom of the winch cable) and then push the pins out to release the winch cable.

Remove the (2) clips and pins 4 that secure the boom to the winch mount. Set these aside as they will be reused.

NOTE: Extra set of hands may be helpful for the next step.

Remove the boom from the winch mount.

Disconnect the electrical connection to the winch under the hood of the gator. Once disconnected pull the electrical connection out of the front of the gator <sup>5</sup> and let it rest to the side.

With a 9/16" wrench and socket remove the(10) bolts securing the winch mount to the gator. Retain hardware as it will be reused.

Remove the pin from the front receiver hitch 🔽

Slide the entire winch bracket out of the front receiver hitch and set it aside.

NOTE: It may be helpful to move the boom to a work bench or table before continuing on to the next step.



# STEP 1 CONTINUED REPLACE WINCH



Modify the boom by using an angle grinder with a cut-off wheel to remove the existing winch cable bracket by cutting it at the cross brace <sup>(3)</sup>.

# NOTE: Safety glasses should be worn when using the angle grinder.

When the parts have cooled down, install the spacers (), followed by the brackets () that will hold the roller. With all four pieces being held tightly together, make a mark where the holes will need to be drilled in the boom.

With the holes marked, remove the brackets. Use a small bit to first drill a pilot hole at each of the four locations just marked **1**. Then, use a 9/32" bit to drill the holes with enough clearance for the bolts.

# STEP 1 CONTINUED REPLACE WINCH







With the holes drilled, reassemble the spacers and brackets and loosely install the bolts <sup>(1)</sup> to secure the brackets to the boom.

With the spacers still in place, install the four self-tapping screws <sup>13</sup> at the back of the brackets using a <sup>3</sup>/<sub>4</sub>" driver.

Remove the spacers and tighten the bolts.

Install the roller **1** by pushing the pin **1** through the bracket and roller and secure with the clip **1**.

NOTE: It may be helpful to move the winch mount to a work bench or table before continuing on to the next step.

# STEP 1 CONTINUED REPLACE WINCH



Remove the four nuts **v** from the u-bolts that secure the winch to the mount. Save all hardware.

Using a 10mm wrench, remove the nuts <sup>1</sup>B that secure the harness to the winch. Save the harness. Discard the hardware.

Using new hardware, reinstall the harness on the new winch. The terminals are labeled + and -. Match red to positive and black to negative <sup>(1)</sup>. Secure with nuts and tighten using a 10mm wrench.

Slide the positive terminal boot back over the stud 20.



# STEP 1 CONTINUED REPLACE WINCH



Attach the winch to the mount using the previous u-bolts, washers and nuts 2. Tighten using a 9/16" socket.

Back at the front of the gator reinstall the winch bracket by sliding it into the front receiver hitch. Secure with pin 22.

Secure the winch bracket to the gator by reinstalling the (10) bolts <sup>3</sup> and tightening using 9/16" wrench or socket.

Reattach the boom to the winch mount using the (2) pins and (2) clips 2 previously removed.

# STEP 1 CONTINUED REPLACE WINCH



Route the winch strap under the roller, then over the top and back down towards the winch <sup>29</sup>. Be sure to keep the strap from twisting. Slide the pin <sup>20</sup> through the mount, strap and bracket on the other side and secure with hair pin clip <sup>20</sup>. The slack will be taken out of the strap at a later step.

Reattach the liquid supply line, air line and the winch electrical connection that were previously disconnected.

STEP 2 ADD AIR PRESSURE GAUGE



Using a 9/16" wrench and socket, remove the left two nyloc nuts <sup>29</sup> that secure the fluid pressure gauge mount to the boom. The nyloc nuts should be retained.

Attach the pressure gauge 29 onto the air pressure gauge bracket 30.

Slide the air pressure gauge bracket onto the u-bolt where the nyloc nuts were just removed. Secure the bracket with the previously removed nyloc nuts (1) and tighten using 9/16" wrench and socket.

Install one end of the ¼" push-to-connect air pressure supply line at the air pressure gauge 2 and route the remainder of the line from the gauge along the liquid supply line 3, under the tank and back to the air pressure tank. Loosely secure with zip ties.



# **STEP 2 CONTINUED** ADD AIR PRESSURE GAUGE



At the air tank at the back of the gator, break the 3 " push-to-connect connection at the back of the tank.

Install the wye-fitting provided **3**. Reconnect the %" line **3** and connect the ¼" push-to-connect line **3** that is routed from the gauge.

NOTE: Depending on how you routed the line from the front of the gator, you may have extra line. This extra can be cut and discarded.

## STEP 3 REMOVE COMPRESSOR BOX



Remove the (3) thumb screws rescuring the cover of the compressor box and remove the cover completely. With a phillips screwdriver and a 5/16" wrench or socket, remove the(4) bolts that secure the compressor to the fender.

At the passenger side of the gator between the tank and the cab, ensure the battery connection is disconnected. Also disconnect the winch connection <sup>39</sup>.

At the driver's side of the gator between the tank and the cab, disconnect the harness from the cab  $\Phi$ .

### STEP 3 CONTINUED REMOVE COMPRESSOR BOX



Following the remaining harness and braided airline down from compressor box, under the fender and tank, cut the <sup>3</sup>/<sub>8</sub>" push-to-connect line <sup>4</sup>/<sub>9</sub> with a knife.

Cut any zip ties that are securing the harness to the frame.

Under the pump, next to the tank, locate the electrical connectors that go to the engine harness 2 and disconnect them.

Follow the same harness around to the passenger side of the gator, to the liquid on/off valve and the air purge and release valves, and disconnect those three connections 3.

With all the electrical connections disconnected and the zipties removed, pull the electrical harness out from under the tank. Remove the entire compressor box 🔮 and set to the side - it will not be reused as the whole box is being replaced.



# **STEP 4** REPLACE ENGINE HARNESS



Disconnect the air pressure switch 49 from the current harness.

With a 10mm socket or wrench, disconnect the starter solenoid connection on the back of the engine by removing the nut and moving the current ring terminal out of the way. Find the positive connection ring terminal on the new harness and secure it where the previous one was just removed **G**. Reinstall the nut and tighten with a 10 mm socket or wrench.

With a 10mm socket or wrench, disconnect the ground connection on the front of the engine by removing the nut and moving the current ring terminal out of the way. Find the ground connection ring terminal on the new harness and secure it where the previous one was just removed **4**. Reinstall the nut and tighten with a 10 mm socket or wrench.

# **STEP 4 CONTINUED** REPLACE ENGINE HARNESS



The remaining four connections consist of a white barrel, white plug, black barrel and black plug. These connections on the new harness are identical to the connections on the current harness. Disconnect each connection one at a time from the current harness and immediately replace it with the identical connection from the new harness

With all the connections replaced, the old harness can be removed and discarded.

### **STEP 5** INSTALL NEW AIR COMPRESSOR BOX



On the drivers side of the gator, set the new air compressor box in place on the fender about with the rear-most side of the box about 20" from the very back of the fender. The box should also be about ½" away from the side of the fender. This should be roughly centered with the "SPRINT" part of the logo on the side of the tank.

Remove the cover and set it aside.

Using a marker, mark the location of the four mounting holes (one in each corner) on the fender.

Remove the box from the fender and using a 3/16" bit, drill a hole at each of the four mounting locations just marked.

# INSTALLATION INSTRUCTIONS



# **STEP 5 CONTINUED** INSTALL NEW AIR COMPRESSOR BOX



Place one of each of the four supplied spacers on top of each of the holes that were just drilled.

Set the box in place on top of the spacers and secure with the provided hardware <sup>(5)</sup> from the underside of the fender.

Route the harness with the winch, battery and cab connectors from the front side of the box under the fender, then up between the tank and cab s. Make the connection from the harness into the cab. Then, on the passenger side of the gator between the TANK and the cab, make the connection to the winch harness. The remaining connection is for the battery harness but this should not be connected until all other updates are complete.

Route the other end of the harness with connectors for the valve and engine under the tank and along the frame back towards the pump and on/off valve <sup>69</sup>.

# **STEP 5 CONTINUED** INSTALL NEW AIR COMPRESSOR BOX



Connect the two 2-pin connections on this harness to the the connectors on the engine harness (5). Once connected, lay the harness under the tank along side the air tank. At the passenger side of the gator, make the connection from the harness to the on/off valve (5). Coil any excess harness and secure it out of the way with a zip tie.

Inside the compressor box, starting with the value closest to you with the ¼" push-to-connect, install the provided ¼" line 🐨 and route it out the box, under the fender, between the tank and cab and thread it to the loosely installed zip ties along the liquid line. Connect the line to the push-to-connect coupler at the boom 🚳.

The zip ties can now be tightened and trimmed.

Inside the compressor box, install the %" line on the value in the back with the %" push-to-connect <sup>(1)</sup>. Route this line out of the box, under the tank along the electrical harness previously routed and to the purge manifold located next to the on/off valve. The harness and %" line can be zip-tied along the frame once all connections have been made.

**STEP 5 CONTINUED** 

INSTALL NEW AIR COMPRESSOR BOX

On the passenger side of the gator, disconnect the existing %'' push-to-connect line located behind the purge manifold. Install the new %'' push-to-connect tube to the purge manifold 60.

NOTE: <sup>(1)</sup> We have previously disconnected the two electrical connections to the air valves but they are left in position because they act as a plug. If you would like to remove them, you will need to provide a plug to the air lines so that the air tank can hold pressure.

Back at the compressor box, check that all the connections are secure before reinstalling the cover <sup>(2)</sup> on the box.



# **STEP 6** REPLACE TAILLIGHT HARNESSES



NOTE: Older model gators will need to update the short adapter harness (part #530513) as well as the taillight harness (part #530512).

Unplug the taillight harness 63 from the OEM harness 64.

# NOTE: You may need to cut any zip ties securing this harness to the SPRINT frame.

Unplug the harness from the taillight 65.

Plug the side of the harness with only two contacts into the back-up light side of the taillight .

Plug the the side of the harness with three contacts into the brake-light side of the taillight **1**.

# **STEP 6 CONTINUED** REPLACE TAILLIGHT HARNESSES





Route the taillight harness <sup>(1)</sup> along the SPRINT frame and connect it to the OEM connector <sup>(2)</sup>.

NOTE: Older model gators will need to connect the adapter harness to the OEM connector and then plug the taillight harness into the adapter harness.

Secure the taillight harness to the SPRINT frame using zip ties.

Repeat the process for the taillight harness on the opposite side.

# **STEP 7** REPLACE 2" FILL PORT WITH 3" FILL PORT



NOTE: Because we will be working with the inside of the tank for the next couple of steps, we advise that gloves be worn.

Remove the (4) 9/16" flange nuts on the 2" fill port and the (2) 7/16" nuts on the underside of the fender that secure the fill port mount. This hardware can be discarded.

Break the connection between the valve and flange vusing a large adjustable wrench. Completely remove the value. It will not be reused.

Remove the flange fitting from the tank by removing the reversethreaded nut <sup>3</sup> from the outside. This nut can be discarded.

The remaining part of the fitting **2** will have to be removed from the inside of the tank. It may be helpful to have an extra person for this step so that one person can pass the fitting from the side of the tank to the next person reaching inside the tank and pull the part out through the hole in the top of the tank. This part can be discarded.



# **STEP 7 CONTINUED** REPLACE 2" FILL PORT WITH 3" FILL PORT

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**REPLACE 2" FILL PORT WITH 3" FILL PORT** 

**STEP 7 CONTINUED** 

Use the new gasket 😨 provided as a template to mark where the holes for the new fill port will need to be drilled.

Remove the gasket and set it aside. Drill the holes at the marks just made 0 using a bit that is slightly larger than the size of the bolts that will be inserted. We recommend a  $\frac{1}{2}$ " bit.

Using an extra person once again, have one person insert the inside of the flange from the hole in the top of the tank while the second person guides it into the holes that were just drilled **7**.

Slide the gasket 78 on from the outside.

Slide the outer flange on the studs and secure with the (6) lock washers and nuts. Tighten using a 9/16" wrench or socket.

Loosely assemble the rest of the kit which includes the valve (19), 45 degree elbow (19), and the cap (19).

Hold the fill port in place so that the flanges on the back side line up with the flange just installed on the tank. Mark the location of the support bracket holes in the fender 3.

Set the fill port assembly aside and drill the two holes in the fender.

Set the fill port assembly back on the fender and secure it to the fender using the provided hardware from the top <sup>(1)</sup>, ensuring to place the provided plate <sup>(1)</sup> on the bottom side of the fender before securing with nuts.

Insert the supplied gasket in between the two flanges and secure the two flanges together using the 3" clamp provided <sup>(B)</sup>. Tighten the clamp using a 5/16" socket or flat-head screw driver.

Be sure to go back and tighten any hardware on the valve that was only loosely installed.

At the top of the tank, cut the existing hose <sup>(1)</sup> to remove it from the existing vent assembly. This hose can be discarded as a new hose is provided in the kit.

**STEP 8** 

**REPLACE VENT ASSEMBLY** 

Remove the existing vent assembly from the tank using channel locks. The coupler <sup>(B)</sup> should remain on the tank but the reducer and the rest of the assembly <sup>(B)</sup> will be removed and can be discarded.

NOTE: The existing assembly may have thread tape or pipe dope on the threads. This is not needed for the new assembly.



# **STEP 8 CONTINUED** REPLACE VENT ASSEMBLY



Assemble the parts included in the vent assembly as shown **90**.

Thread the new vent assembly into the same coupling where the old vent assembly was just removed  $\mathfrak{G}$ .

Orient the assembly so that the elbow is facing the front of the gator and angled slightly downward  $\mathfrak{D}$ .

Remove the 360 SPRINT logo from the passenger side of the tank.

Boute the new 1-¼" hose up from under the fender, along the grove in the tank and connect it to the elbow on the vent assembly. Secure the hose to the frame with zip ties. Any excess hose can be cut and discarded.

Reinstall the 360 SPRINT logo 🕺 on the passenger side of the tank.

# **STEP 9** REPLACE TURNBUCKLE





NOTE: Both turnbuckles are the same so it doesn't matter which side you start with.

At the side of the gator, remove the clip  $^{(1)}$  from the bottom of the turnbuckle and pull the pin  $^{(2)}$ . Retain the clip and pin as they will be reused.

NOTE: A second set of hands or forklift may be needed to lift the back of the SPRINT frame up in order to remove pressure from the pin when removing.

At the back of the gator, remove the clip **9** from the top of the turnbuckle and pull the pin **9**. Retain the clip and pin as they will be reused. Completely remove the turnbuckle.

Repeat the process for the opposite side.

# STEP 9 CONTINUED REPLACE TURNBUCKLE



Starting at the side of the gator, install the new linkage <sup>99</sup> and secure with the previously removed pin and clip <sup>100</sup>.

Move around to the back of the gator and secure the top of the linkage with the previously removed pin 0 and clip 0.

NOTE: A second set of hands or forklift may be needed to lift up on the back of the SPRINT frame in order to properly align the top of the turnbuckle.

Repeat the process for the linkage on the opposite side.



# INSTALLATION INSTRUCTIONS



# STEP 10 INSTALL CHECK VALVE



Using a 5/16" socket, remove the clamp <sup>109</sup> right before the on/off valve and remove the hose.

Place the provided clamp over the end of the hose and then install the gasket. Align the check valve with the the end of the hose with the arrow on the valve oriented to the front of the gator. Secure the check value to the hose by tightening the clamp with a 5/16" socket.

Ensuring there is another gasket between the check valve and the on/off value, use the previously removed clamp to secure the check value to the on/off valve. Tighten the clamp using a 5/16" socket.

# STEP 11 INSTALL SMV SIGN



At the back of the SPRINT frame position the bracket for the slow moving vehicle sign at the center of the frame and mark where the holes need to be drilled.

Set the bracket aside and using a drill with a pilot bit, drill through both pieces of the frame for each hole.

Change to a  $3^{\prime\prime}$  bit and drill the holes for the bolts. Remember to drill through both sides of the frame for each hole  $^{\circ\circ}$ .

Secure the bracket to the frame using the carriage bolts  $^{\textcircled{0}}$  ensuring that the bolts go through both pieces of the frame. Install the nuts and tighten using a  $\frac{1}{2}$  wrench or socket.

Slide the slow moving vehicle sign  $^{10}$  down into the bracket.

# **INSTALLATION COMPLETE**



NOTE: With all the new components installed go back and check that all hardware has been tightened and all electrical connections are complete.