

1 Purpose

1.01 The purpose of this document is to describe the procedure for retrofitting a handle to the new trigger design on an orbital machine.

2 Scope

2.01 This SOP applies to all field retrofits. The process applies to the following machine ID's:
E088066EQM0600BA1000 – Basic Sand Dragon 20, Orbital Sander 20"
E088066EQM0600BE1200 – Crewman 20 ORB, Orbital Strip Machine 20"
E088066EQM0607BA1000 – Basic Sand Dragon 20, Orbital Sander 20" Canadian
E088066EQM0607BE1200 – Crewman 20 ORB, Orbital Strip Machine 20" Canadian
E088068EQM0600BA1000 – Basic Sand Dragon 20, Orbital Sander 20" w/Weights
E088068EQM0600BE1200 – Crewman 20 ORB, Orbital Strip Machine 20" w/Weights
E088068EQM0607BA1000 – Basic Sand Dragon 20, Orbital Sander 20" w/Weights Canadian
E088068EQM0607BE1200 – Crewman 20 ORB, Orbital Strip Machine 20" w/Weights Canadian
E088070EQM0600BA1000 – Basic Sand Dragon 28, Orbital Sander 28" w/Weights
E088070EQM0600BE1200 – Crewman 28 ORB, Orbital Strip Machine 28" w/Weights
E088070EQM0607BA1000 – Basic Sand Dragon 28, Orbital Sander 28" w/Weights Canadian
E088070EQM0607BE1200 – Crewman 28 ORB, Orbital Strip Machine 28" w/Weights Canadian

3 Materials

3.01 The proper components for the retrofit are provided in the kit.

The following items are needed but not supplied:

- Silicone Grease
- Hand Drill with a phillips bit or a phillips screw driver
- Needle Nose pliers
- O-ring pick or equivalent (if available / works the best to install springs)
- Flat head screwdriver

4 Definitions

5 Procedure

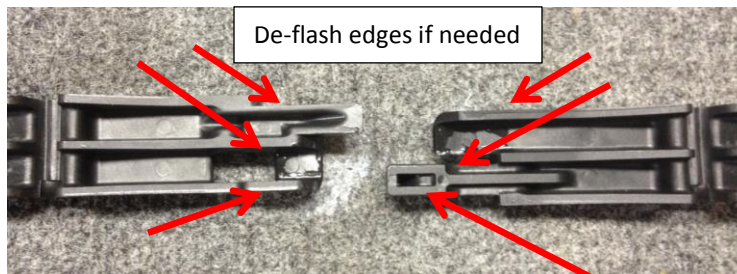
5.01 Locate the two pieces that make up the handle trigger assembly. These need to be dry fitted to verify that they function properly. Note the orientation in the photos below.



5.02 Interlock the two pieces as shown. This will require a slight scissor motion.



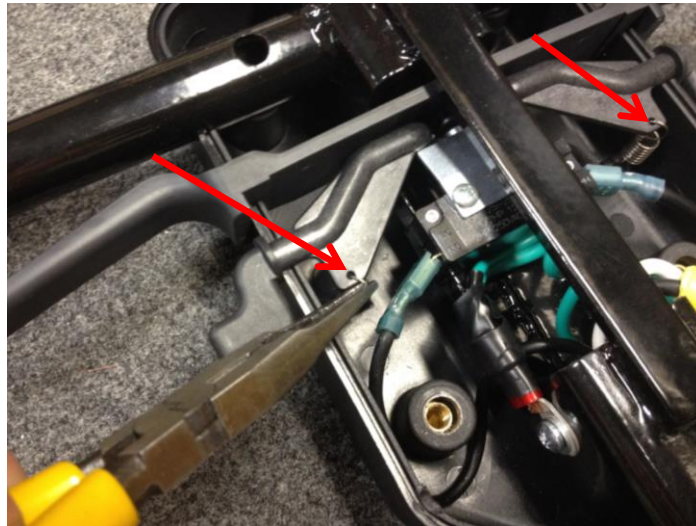
5.03 Rotate the two pieces up and down to make sure that they slide freely and without catching. If they catch, there are 2 things that can be done. Take a knife and remove any flashing from the top edges of the parts. Apply a very light coating of silicone grease onto the sliding surfaces. Once the pieces move properly, proceed to the retrofit.



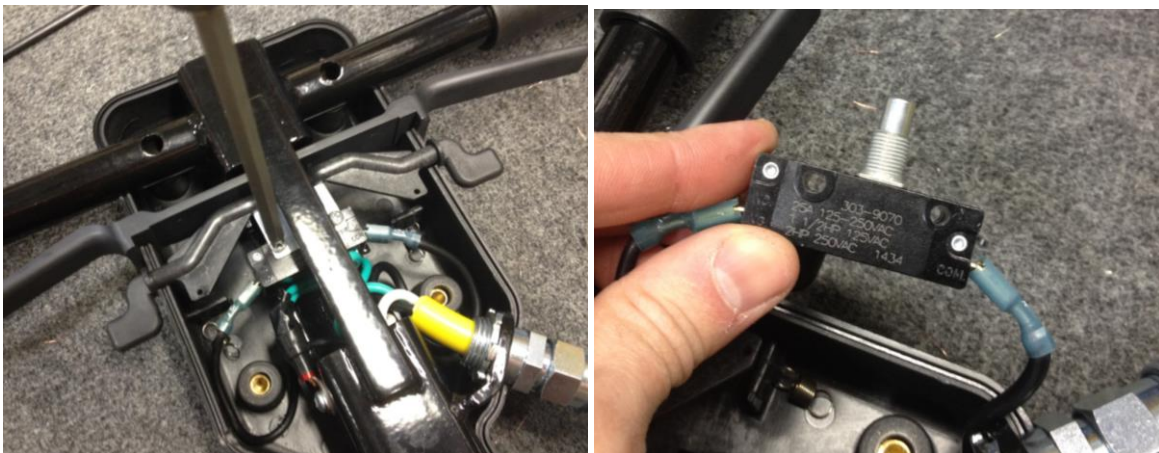
5.04 Remove the back cover from the machine handle. There are 4 screws holding it on.



5.05 Use a pair of needle nose pliers to disconnect the two springs from the safety lock.



5.06 Remove the trigger switch. The metal switch plate will not be used and can be discarded. There is no need to disconnect the wires from the switch.



5.07 Take the back cover off of the handle weldment and remove the old safety lock and trigger.



5.08 The existing spring and bracket need to be removed because the new orientation is different. The spring clips needs to be pried off using a screwdriver. There are teeth in the bracket that need to be bent away from the rib on the handle.



5.09 Take a spring from the kit and place the loop of it over the tab on the spring clip provided.

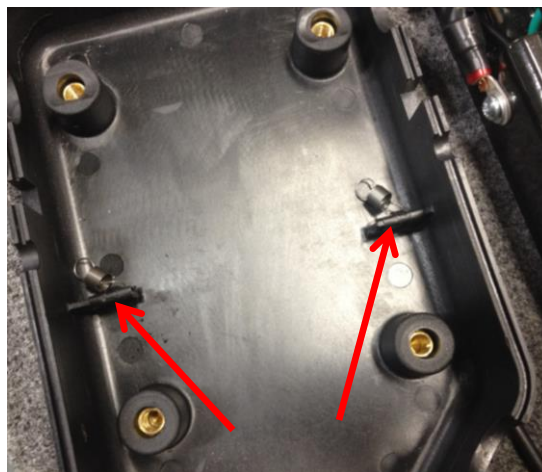


5.10 Use the pliers to smash down the tab so that the spring does not fall off.

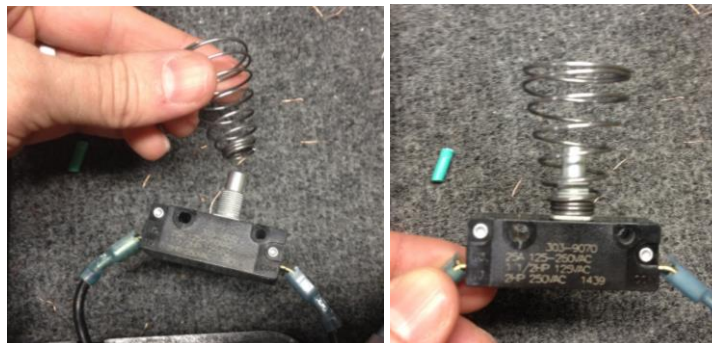


5.11 Repeat for the 2nd spring and spring clip.

5.12 Install each of the spring clips into the housing onto the ribs shown. The clip presses onto the rib. Be sure the location is correct because the clips bite into the plastic and can't be removed without destroying them.



5.13 Take the conical spring provided and thread it onto the trigger switch. Simply twist it onto the threaded portion of the switch.



5.14 Re-install the trigger switch into the handle.



5.15 Pull the conical spring down and install the new safety lock into the handle in the orientation shown. The safety lock will just lay there for now. It does not sit into a groove yet.

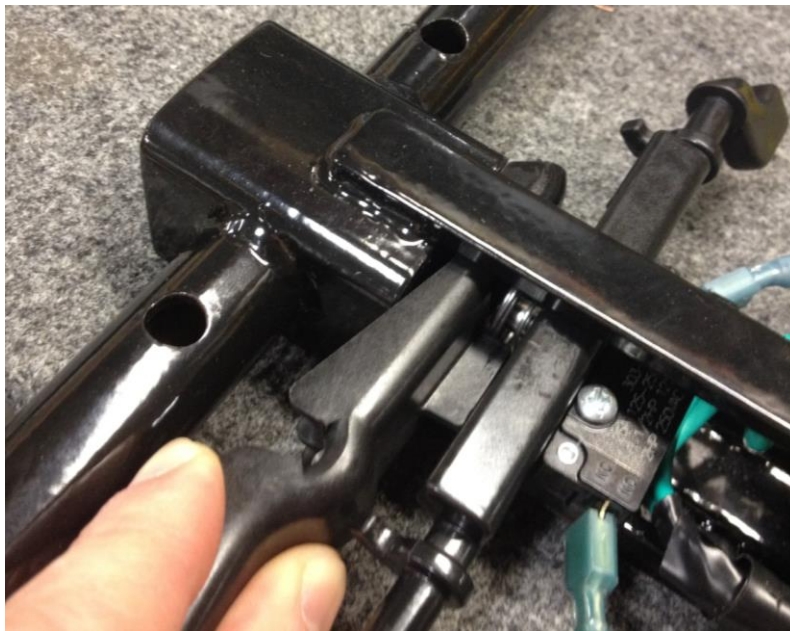
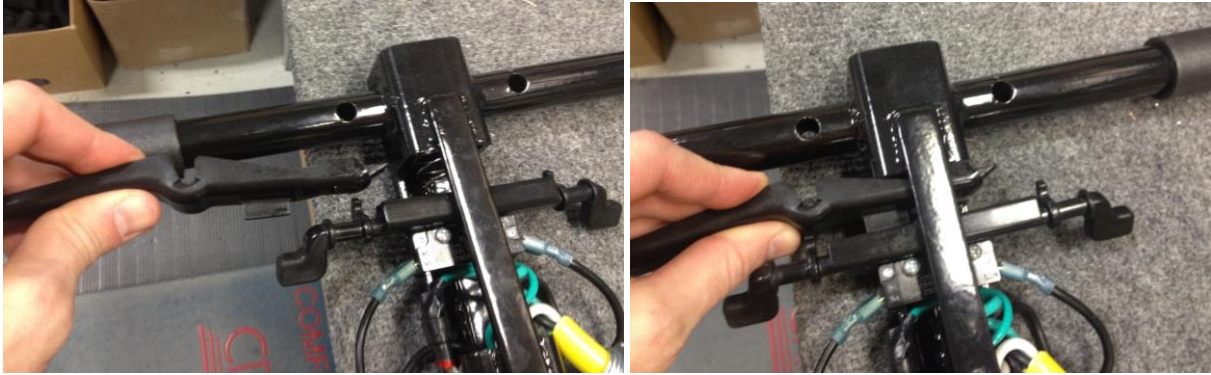


5.16 Take the 2 pieces of the trigger handle that were assembled first and orient them to the handle as shown.



5.17 The handle triggers need to be separated into the individual pieces. It is extremely difficult to feed the entire assembly into place.

5.18 Take the piece shown, pull down the conical spring, and feed it through as far as it will go.



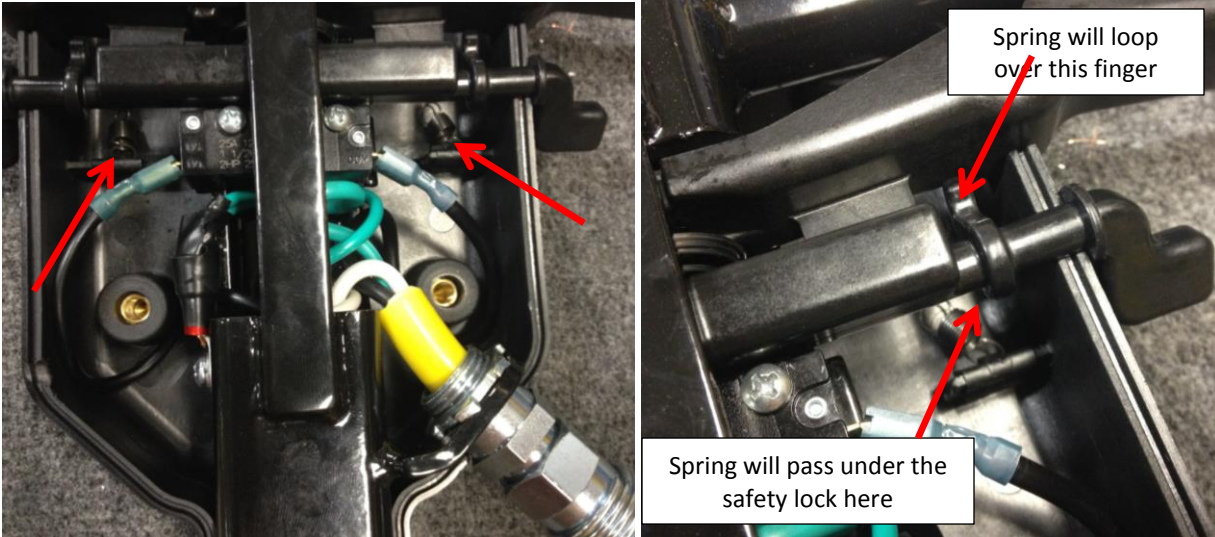
5.19 Take the 2nd trigger piece and mate it back up with the 1st piece. Center the pieces in the handle. Again, the pieces will just lay there for now.



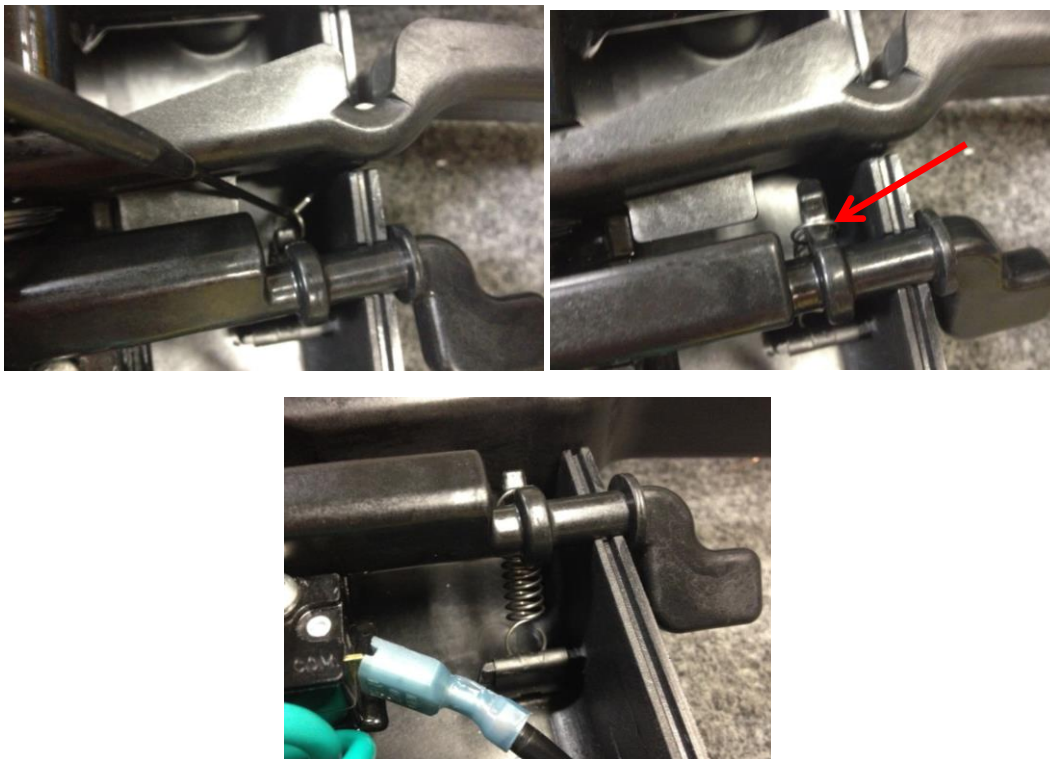
5.20 Place the back cover back into position. The trigger handles and the safety lock will fit into the grooves.



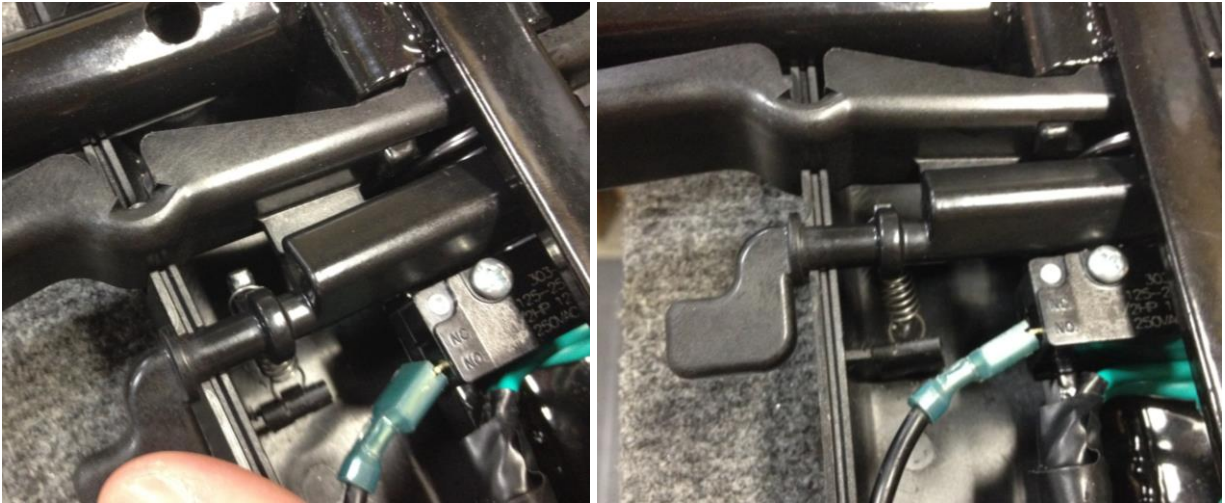
- 5.21** Each of the springs needs to be stretched under the safety lock and around the finger shown. This is best done using an o-ring pick or equivalent. If none are available, needle nose pliers will need to be used.



- 5.22** Grab the loop on the spring and rotate the finger of the safety lock downwards so that the loop on the spring can be placed over it. Rotating the finger down decreases the distance that the spring needs to be stretched and makes installation much easier.



- 5.23** For all remaining steps, please be sure that the safety lock is not allowed to rotate freely since there is spring pressure being applied. This will cause it to spin and the spring will pop off. Keeping a finger on the safety lock will help keep it still.
- 5.24** Repeat the installation for the opposite spring. When rotating the safety lock so that the spring can be looped over the finger, use your other hand to make sure that the opposite spring does not come off.



- 5.25** Hold the safety lock so that it does not pop out of the groove.



5.26 Replace the back cover of the handle. Assembly is now complete.



6 References (optional section as needed)

6.01

7 Training Guide

Functional Training Groups Requiring Training

8 SOP Change Control

Date of Change	Reason for Change
11/22/2013	This is the first version of the S.O.P. hence there are no revisions to this document.



Approvals

Submitter/Author Approval: _____ **Date:** _____

Management Approval: _____ **Date:** _____

QAU Approval: _____ **Date:** _____