

56126043 3D CAMERA KIT

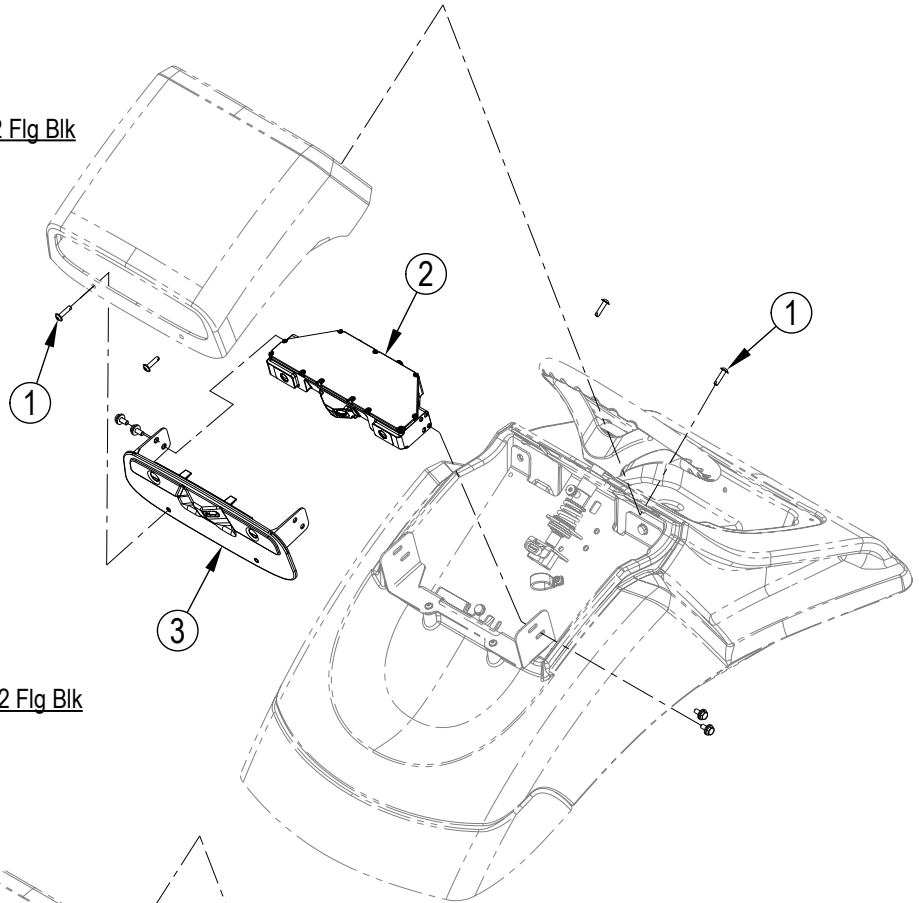
56126044 3D CAMERA KIT

For Liberty SC50 Models: ALL

CONTENTS OF KIT

Item	Ref. No.	Qty	Description
[]	56090494	1	Instruction Sheet
#	56126043		3D Camera Kit
1	56004018	4	Scr M6x25 Iso7380-2 Flg Blk
2#	56126022	1	Camera-3D
3#	56126021	1	Bezel-Camera

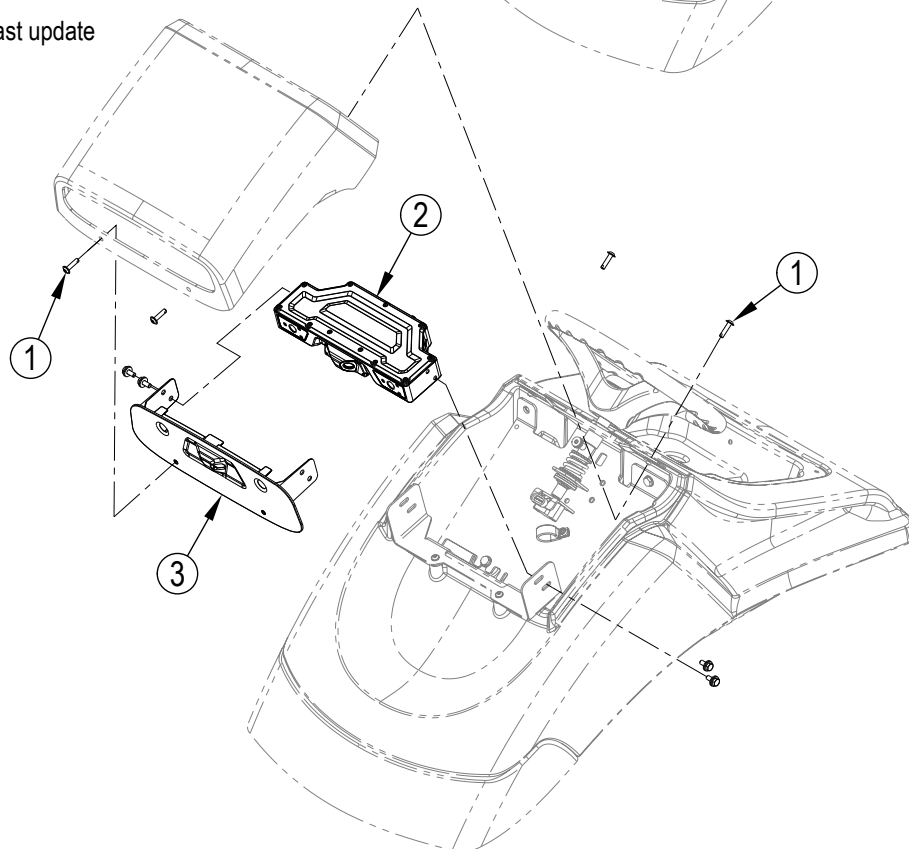
[] = Not Shown



Item	Ref. No.	Qty	Description
[]	56090494	1	Instruction Sheet
#	56126044		3D Camera Kit
1#	56004018	4	Scr M6x25 Iso7380-2 Flg Blk
2#	56126037	1	Camera-3D
3#	56126038	1	Bezel-Camera

[] = Not Shown

= Revised or new since last update



INSTALLATION INSTRUCTIONS

1. Turn on the machine and review any active fault codes before disconnecting the main battery connector. This is done so that upon installation of the new camera it can be verified that no new faults were introduced.

⚠ CAUTION!

When working on an SC50 and a battery disconnect is needed, ensure that the Autonomy Module is completely powered off before the power is pulled from the system. To verify that the Autonomy Module is completely powered down simply wait for both the safety LiDAR's and Dropoff lasers to power off, plus an additional 15 seconds after that. If this procedure is not followed when disconnecting the battery, there is a chance that the Autonomy Module could be permanently damaged and would need replacement.

⚠ WARNING!

Disconnect battery before servicing.

REMOVE THE EXISTING CAMERA

2. Disconnect the main battery connector.
3. **See Figure 1.** Remove the 4 screws (C) that secure the autonomy cover (B) over the autonomy bay (A), and remove the cover.
4. **See Figure 2.** Disconnect the Ethernet electrical connector (HE) and power electrical connector (HP) from the back of the camera (J).
5. Remove the four screws (D), lock washers (E), and flat washers (F) that secure the existing camera (J) or 3D Camera (2) and camera bezel (G) or 3D Camera bezel (3) to the mounting bracket.
6. Remove the camera from the machine. **NOTE:** Observe the routing of wiring to duplicate on the new camera.

FIGURE 1

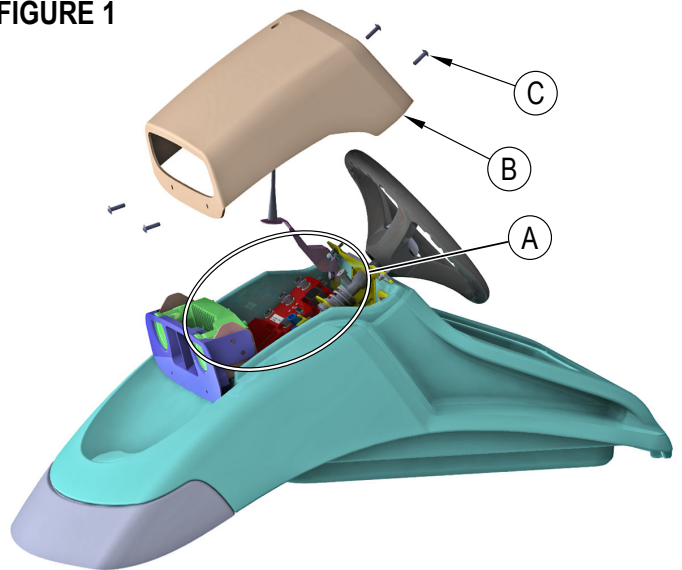
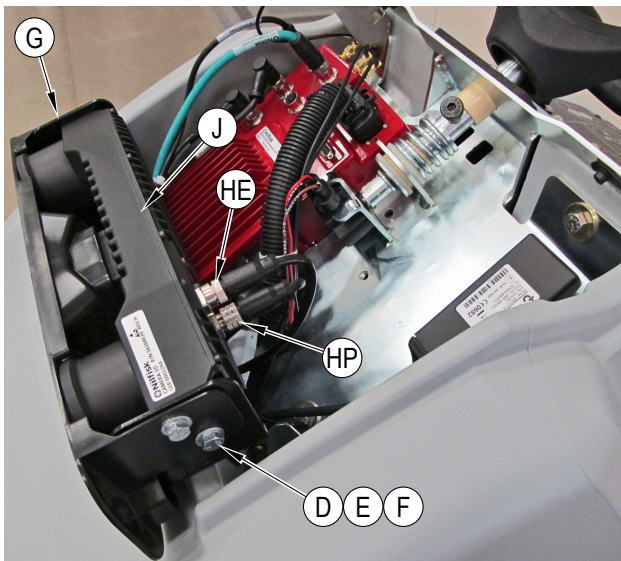


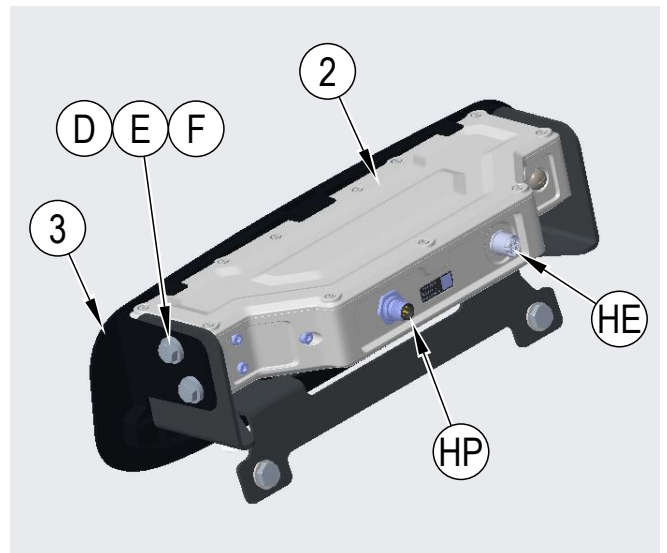
FIGURE 2

Existing Camera



56126043 3D Camera Kit

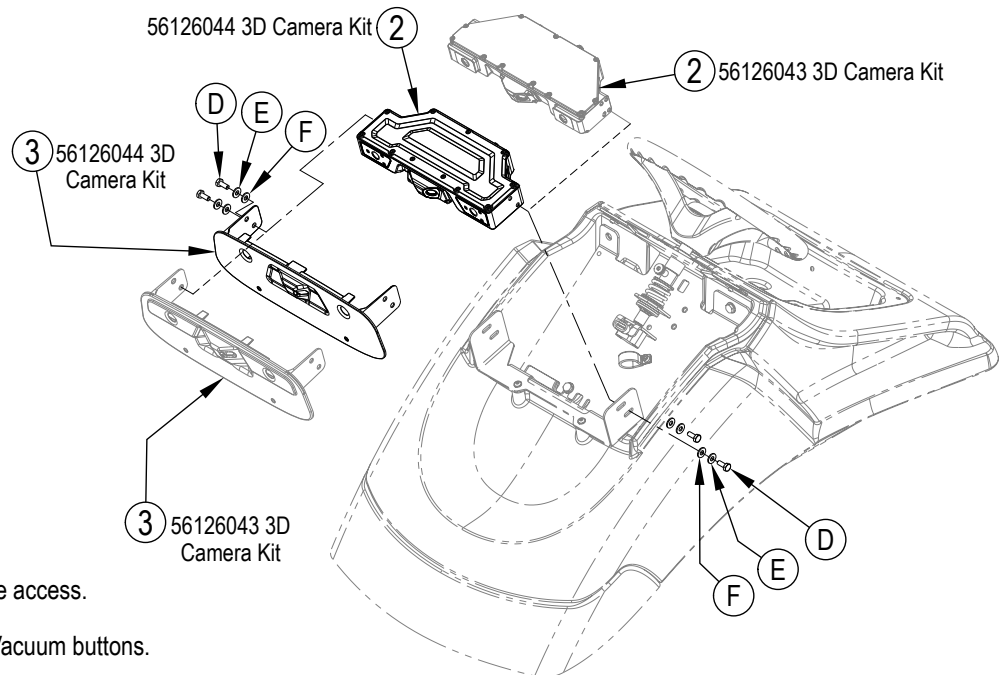
56126044 3D Camera Kit



INSTALL THE NEW CAMERA

7. **See Figure 3.** Install the camera (2) and bezel (3) from the kit, and loosely secure them with the existing four screws (D), washers (E), and lock washers (F).
8. **Refer to Figure 1.** With the camera installed snug enough to hold position, but still loose enough that you can reposition it, temporarily place the autonomy cover (B) over the autonomy bay (A), and align the camera bezel with the front face of the autonomy cover.
9. Carefully remove the autonomy cover, and tighten the four screws securing the camera.
10. Connect the Ethernet electrical connector (HE) and power electrical connector (HP) to the back of the camera. Torque both connectors to 3.5 in/lbs. (0.4 Nm).
11. Confirm the autonomy cover fits correctly, re-align the camera if necessary, and install the autonomy cover using the original four screws (C), torque to 28.5 in-lb (3.2 Nm).

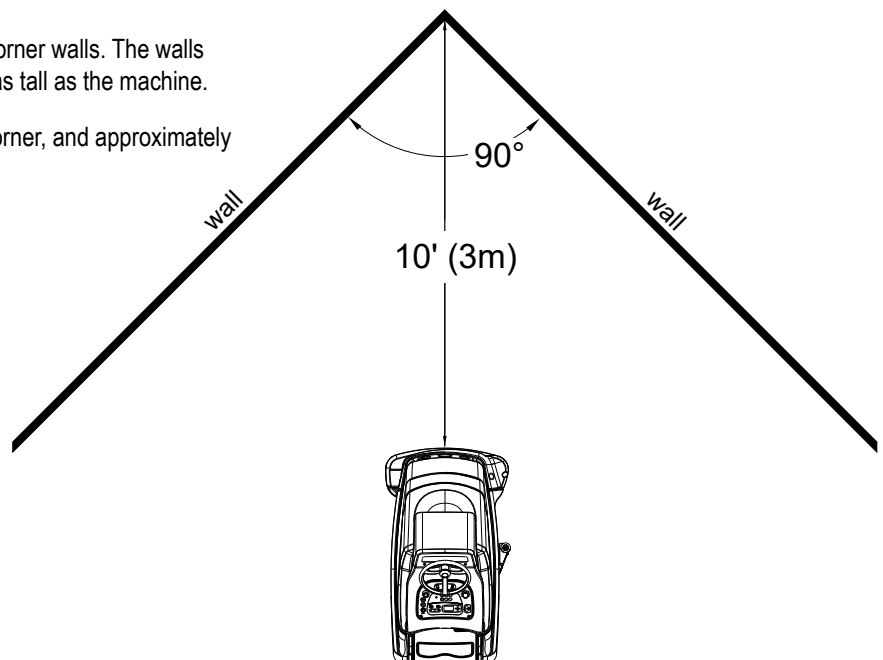
FIGURE 3



12. Power the machine with service mode access.
 - a. Press and hold the Scrub and Vacuum buttons.
 - b. Press and release the Power button.
 - c. When the display illuminates and the machine begins its bootup process, you may release the Scrub and Vacuum buttons.

3D CAMERA CALIBRATION

1. Move the machine to an area with inside corner walls. The walls should be vertical, unbroken, and at least as tall as the machine.
2. Park the machine facing directly into the corner, and approximately 10 feet (3 m) from the corner.



3D CAMERA CALIBRATION - CONTINUED

3. Go to the Main menu, Service menu, Autonomy menu, and select “Calibrate Camera”.
4. Press the *i* button on the display to initiate the calibration.
5. The display will indicate that the Autonomy module is processing the camera and mapping laser outputs.
6. When the “Processing” message clears and returns to the previous display, the calibration is complete.
7. Review any active faults in comparison to those present prior to install to ensure no new faults were introduced.
8. Verify camera function by reading a location tag.

