Backbone Release Switch Upgrade for Semi-Automatic Devices

Document number: 719-00632A-A

Product

Magnus VLF Semi-Automatic

FCO priority

Next visit

See FCO CA09028

Machines affected All

Background

A safety hazard exists where somebody's hand can get trapped between the leading edge backbone and the table or drum. To provide a quick method of releasing the pressure in the backbone cylinders, two backbone release switches must be installed close to the red E-stop switches in the rear hood.

Solution

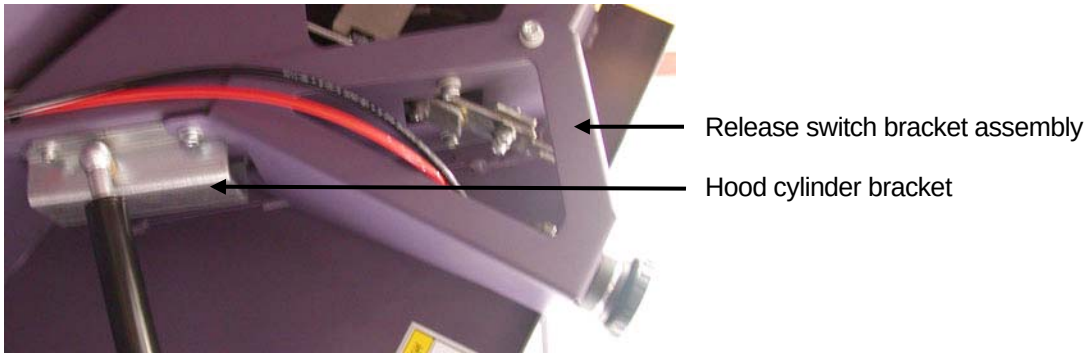
Install the backbone release switches and brackets, release switch pneumatic tubing, and replace the manifold with a newer version if applicable. Install the additional wiring required according to the Safety Release Backbone Upgrade Procedure (719-00468A). See FCO CA06631.

Parts required

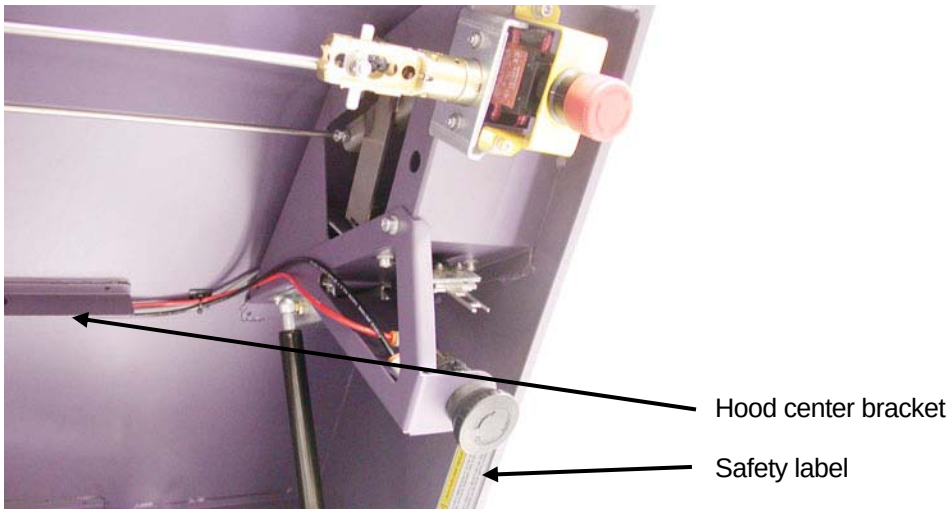
Part Number	Part Name	Quantity
512-00342A	Upgrade kit for MT002 to MT023	1
512-00341A	Upgrade kit for MT027 and later	1

Procedure

1. Open the device's rear hood. Type `>>door unlock` .
2. Turn off the power and compressed air supply to the device.
3. Install the home side bracket/release switch assembly on the rear hood. Use the existing screws that hold the hood cylinder mounting bracket to also hold the release switch bracket where the holes coincide.

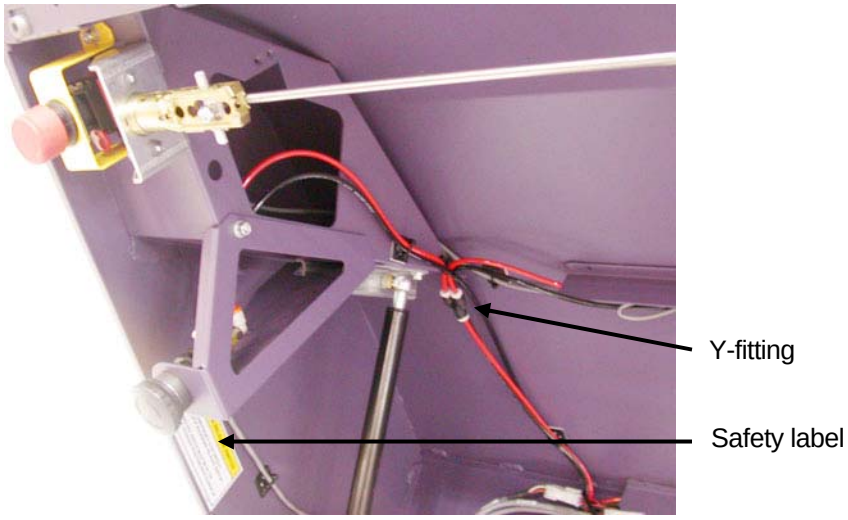


4. Route the red and black tubes from the backbone release switch to the underside of the bracket running down the center of the hood along the length of the hood. Use cable ties to secure the tubes to the bracket and to the underside of the hood with cable tie fasteners. Ensure that the tubes will not interfere with the hood cylinder when the hood is opened and closed.

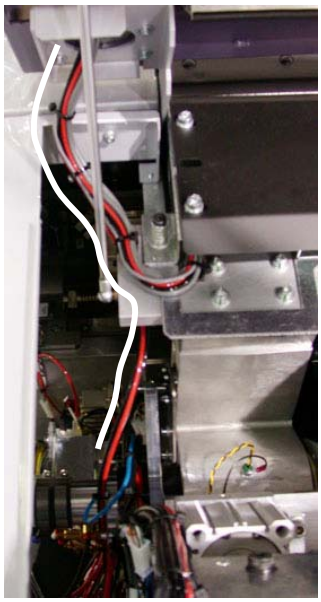


5. Install the away side bracket/release switch assembly on the rear hood. As with the home side, use the existing screws that hold the hood cylinder mounting bracket to also hold the release switch bracket where the holes coincide.

6. Route the red and black tubes from the release switch as shown in the photo below. The red tube from each switch connects to a Y-fitting and a single red tube is run to the manifold with the two black tubes. Use cable ties to secure the tubes to the hood. Ensure that the tubes will not interfere with the hood cylinder when the hood is opened and closed.



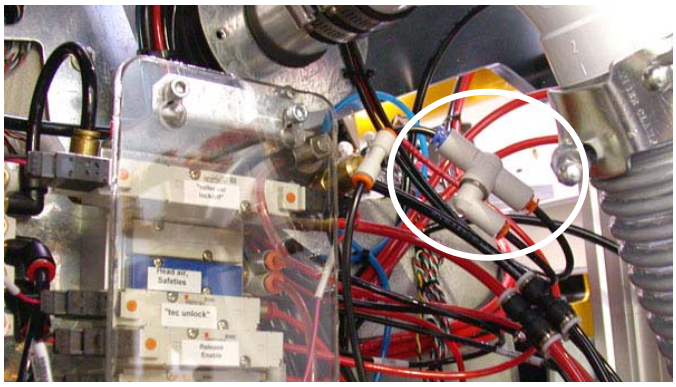
7. Route the two black tubes and the red tube along with the existing cables from the inside of the hood to the engine and then down to the engine manifold (as shown by the white line in the photo below). Ensure that the tubes will not interfere with any moving parts and use cable ties to secure them in place.



8. To access the engine manifold, remove the away-side side panel and swing open the filter/regulator door.

Note: For devices MT002 to MT023, proceed to step 9. For devices MT027 and later, jump to step 11.

9. Remove the existing engine manifold assembly from the device—ensure that all electrical and tube connections to the manifold are labeled prior to removal. The old manifold must be returned for refurbishment.
10. Install the new manifold assembly and connect all the cables and tubes that were removed in the previous step. Note that the tube that previously connected to the **Roller** regulator now connects directly to the A port of the **roller on/lock/off** valve on the new manifold.
11. Connect the red tube from the release switches to the **Release Enable** solenoid and connect the two black tubes to the shuttle valve (the U-fitting hanging loose from the manifold). See pneumatic diagram 718-00023D and manifold drawing 50-2654C item 410).



12. Apply the two safety labels on the inside of the hood behind each backbone release switch as seen in the photos in this procedure.

Installing the cables

Refer to the **Safety Release Backbone Upgrade Procedure** (719-00468A) for instructions on how to install the new cables that support the backbone release switch operation. The cables for this part of the upgrade are included in kit 512-00342A and 512-00341A and it is not necessary to order kit 512-00261B.

Testing the switches

1. Turn on the compressed air supply and the power to the device.
2. Turn the Safety Interlock Override key switch to the Interlock Override position.
3. Move the backbone to the horizontal unload position. Type `>>backbone horizontalunload` .
4. Press one of the E-stop buttons and then press the backbone release switch closest to it. If you are able to move the backbone away from the table, then the air has been released from the cylinders and the backbone release switch is functional. If you are unable to move the backbone, then the backbone release switch is not functional. Check the pneumatic connections to the backbone release switches and the engine manifold and check the electrical connections.
5. Reset all switches and test the other backbone release switch.

See also	Safety Release Backbone Upgrade Procedure (719-00468A) Pneumatic diagram (718-00023D) Manifold diagram (50-2654C) Backbone Safety Hazard (761-00024A)
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Date submitted	22 Feb 2006
Last updated	06 Mar 2006