Kodak

Adjusting Interlocks on Magnus 400 and Lotem 400

Platesetters

Adjustment and Alignment Procedure

English

731-00913A-EN

Copyright

© Kodak, 2007. All rights reserved.

Kodak, Creo, and Magnus are trademarks of Kodak.

Acrobat, Adobe, Distiller, Illustrator, PageMaker, Photoshop, and PostScript are trademarks of Adobe Systems Incorporated.

Apple, AppleShare, AppleTalk, iMac, ImageWriter, LaserWriter, Mac OS, Power Macintosh, and TrueType are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc., registered in the U.S.A. and other countries.

Hexachrome, PANTONE, PANTONE Hexachrome, and PANTONE MATCHING SYSTEM are the property of Pantone, Inc.

PEARL, PEARLdry, PEARLgold, PEARLhdp, and PEARLsetter are registered trademarks of Presstek, Inc.

XEROX is a trademark of XEROX CORPORATION.

http://graphics.kodak.com/

Internal 731-00913A-EN

Revised February 2007

Contents

Product 1
Background 1
Requirements 2
Procedure 3
    Using Jigs 3
    Verifying Locker Clearance 4
    Verifying Interlock Latch Positions 5
    Testing the Interlocks on the Doors and Panels 9
Technical Contact(s) 16
Date Submitted 16
Last Updated 16

Product

- Kodak® Magnus™ 400 platesetter
- Kodak Magnus 400 platesetter with Kodak Xpo™ software
- Kodak Magnus 400 Quantum platesetter
- Kodak Magnus 400 platesetter with multi-cassette unit (MCU)
- Kodak Lotem® 400 platesetter
- Kodak Lotem 400 platesetter with Xpose™ software
- Kodak Lotem 400 Quantum platesetter
- Kodak Lotem 400 platesetter with MCU

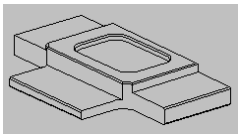
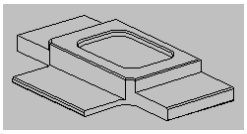
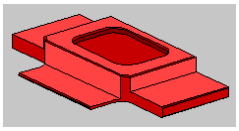
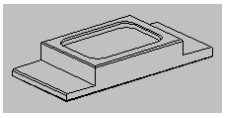
Background

Doors and panels whose interlocks are properly aligned and adjusted are not affected by the platesetter's vibrations during operation, and do not cause interlock- and laser-related false alarms. This procedure describes how to verify that the doors and panels on the platesetter are properly adjusted (clearance), and that the depth and position of the interlock latches on the various doors and panels are correct.

Requirements

- Interlock kit
- Digital voltmeter (DVM)
- Masking tape

Interlock Kit (part number 518-01580A)

Item and Part Description	Part Number	Quantity	Image
Omron space regulator load jig (thick jig edges for front door)	690-00738A	1	
Omron space regulator unload jig (thin jig edges for upper-rear door)	690-00737A	1	
Omron M400 side-door jig (aluminum red-coated jig for side doors)	690-00736A	1	
Omron rear/front panel space regulator jig (without jig leg)	690-00723A	1	
Interlock jig cable	220-01407A	1	
Interlock spacer	252-10209A	10	

Procedure

This document describes how to test and adjust the interlocks on the doors and panels of your platesetter using the interlock adjustment jig, and includes the following sections:

- *Using Jigs*
- *Verifying Locker Clearance*
- *Verifying Interlock Latch Positions*
- *Testing the Interlocks on the Doors and Panels*

Using Jigs

Even though the jigs appear to be similar, each one is a different size, according to the location in which it is used. Interlock jigs are used in the following locations:

- Upper-rear door
- Front door
- Rear and front panels
- Side doors

To adjust the interlocks on the platesetter, use the appropriate interlock adjustment jig. See *Interlock Kit (part number 518-01580A)* on page 2.

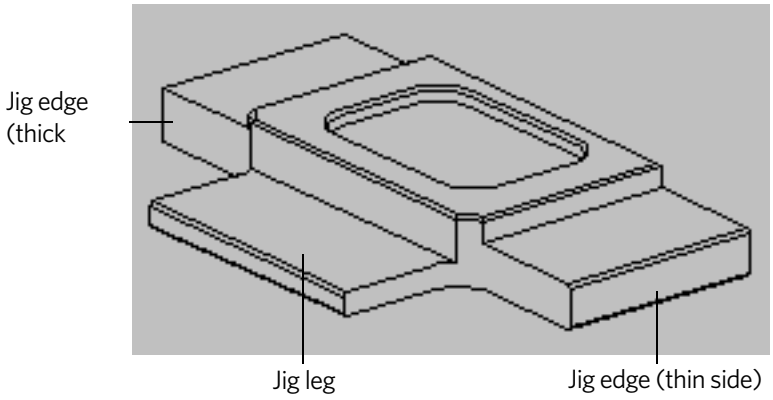


Figure 1: Interlock adjustment jig

- Use the *jig leg* to test the clearance between the doors, panels, and mainframe. If there is excess play between the parts, you must adjust the locker position.

  Note: To test the clearance between the front panel and the mainframe, use the thin-sided jig edge.

- Use the *jig edges* to test interlock functionality. If the interlocks do not function properly, you must adjust the depth and/or position of the interlock latches.

Verifying Locker Clearance

To verify that the doors and panels are properly adjusted, use the jig leg on the interlock adjustment jig.

Testing Clearance

1. On the right side of the platesetter, insert the jig leg into the area being tested and verify that there is no excess play between the parts being tested. If there is excess play, adjust the locker.

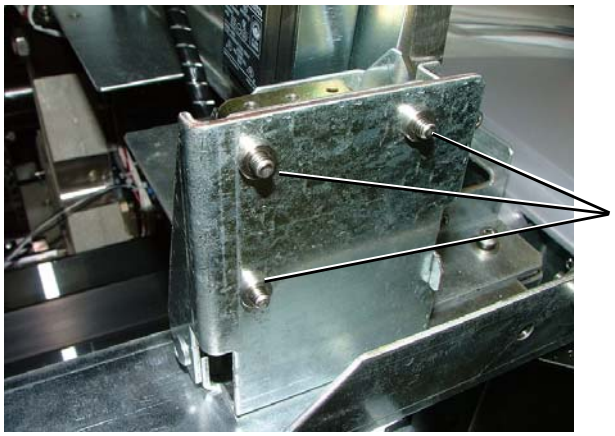


Figure 2: Inserting the jig leg

2. Repeat step 1 on the left side of the platesetter.

Adjusting Lockers

1. Release the screws that secure the locker to the mainframe.



2. Adjust the locker position, and then tighten the screws.
   - For excess play, lower the locker position.
   - For little or no play, raise the locker position.
3. Retest the clearance.

Verifying Interlock Latch Positions

To verify that the interlock latch position is correct, you must perform two tests—a position test and a depth test.

- To test the interlock latch position, use masking tape.
- To test the depth at which the interlock latch is located inside the platesetter, use the DVM.

Testing the Interlock Latch Position

1. Place a strip of masking tape over the interlock's entry point.



Figure 3: Taping masking tape over the interlock entry point

2. Carefully close the door or panel until the interlock latch punches holes in the masking tape.
3. Manually open the door or panel.
   - If the punched holes appear centered in the middle of the entry point, the interlock is correctly positioned.



Figure 4: Correctly positioned interlock latch

   - If the punched holes are not centered in the middle of the entry point, reposition the interlock latch so that it is aligned with the entry point on the Omron interlock. See *Adjusting the Interlock Latch Position* on page 6.

Adjusting the Interlock Latch Position

Important: It is easier to remove or add spacers to the interlock latch than from the Omron interlock. Therefore, if possible, try to remove or add spacers to the interlock latch before attempting to remove or add spacers behind the Omron interlock. See Adjusting the Interlock Latch Depth on page 8.

1. Before dismantling the Omron interlock, use a pencil to outline its position on the mainframe.



Figure 5: Interlock outlined

2. Using a hex key, loosen the two screws that secure the Omron interlock to the mainframe.
3. Remove or add spacers behind the Omron interlock, as required.
4. Using the marked outline as a guide, reinstall the Omron interlock.

Testing the DVM

Before you test the interlock latch depth, make sure that the DVM is working properly.

1. Set the DVM to ohm position.



Figure 6: DVM start position setting

2. If any probe cables are connected to the DVM, unplug them.
3. Plug the interlock jig cable (part number 220-01407A) into the DVM.
   - **Black cable end**: Plug into the negative (common) jack.
   - **Red cable end**: Plug into the volt/ohm/temp jack (not A or mA jack).
4. Using one of the two DMV probes, touch the other probe. When the two probes touch each other, the DVM should beep. If the DVM does not beep, replace the batteries in the DVM.

Testing the Interlock Latch Depth

Note: If interlock latches are located on both the left and right sides of the platesetter doors and panels, perform the procedure first on one side of the platesetter, and then repeat the procedure for the other side of the platesetter.

1. Disconnect the interlock harness from the interlock connector.
2. Connect the interlock jig cables to the four-pin interlock connector.

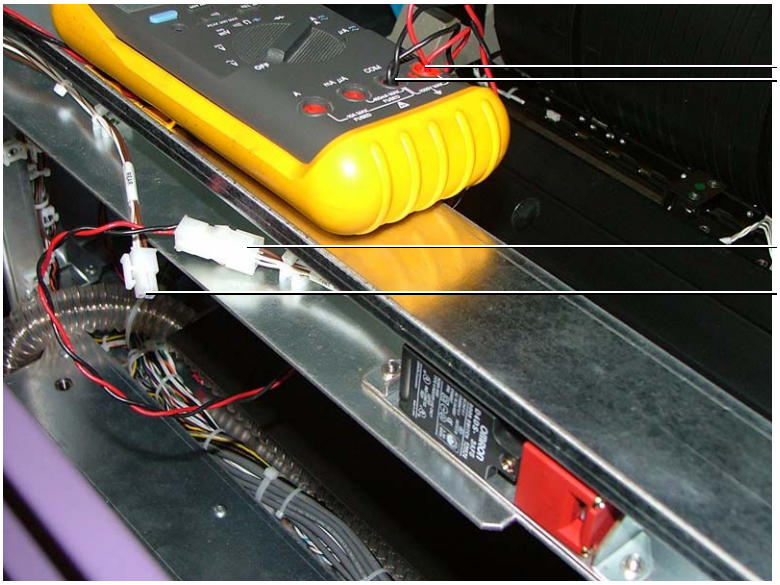


Figure 7: Connecting the interlock four-pin jig connector to the harness

3. Plug the interlock jig cables into the DVM jacks.
   - Plug the black cable end into the negative (common) jack.
   - Plug the red cable end into the volt/ohm/temp jack (not A or mA jack).
4. Route the interlock four-pin jig along the inside of the platesetter so that it does not interfere with closing the doors and panels.

5. With all doors and panels closed, insert the thin edge of the interlock adjustment jig between the door or panel and mainframe, and level to the interlock assembly. The DVM should beep.

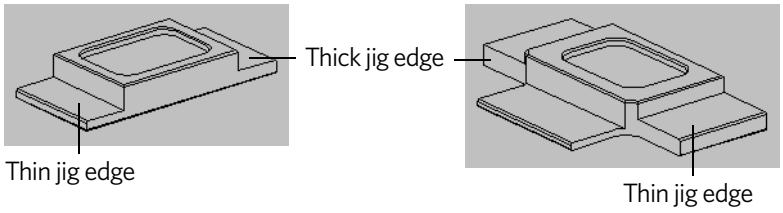


Figure 8: Interlock adjustment jig edges

If the DVM does not beep, add spacers to the interlock latch. See *Adjusting the Interlock Latch Depth* on page 8.

6. Remove the thin-sided jig edge and insert the thick edge of the interlock adjustment jig in the same position. The DVM should not beep.

   If the DVM beeps when the thick edge of the jig is inserted, remove spacers from the interlock latch. See *Adjusting the Interlock Latch Depth* on page 8.

7. When you finish testing the interlock latch depth, reconnect the interlock connectors.

Adjusting the Interlock Latch Depth

1. In the relevant location, use a pencil to mark the outline of the interlock latch.
2. Loosen the two hex screws that secure the interlock latch to the mainframe.

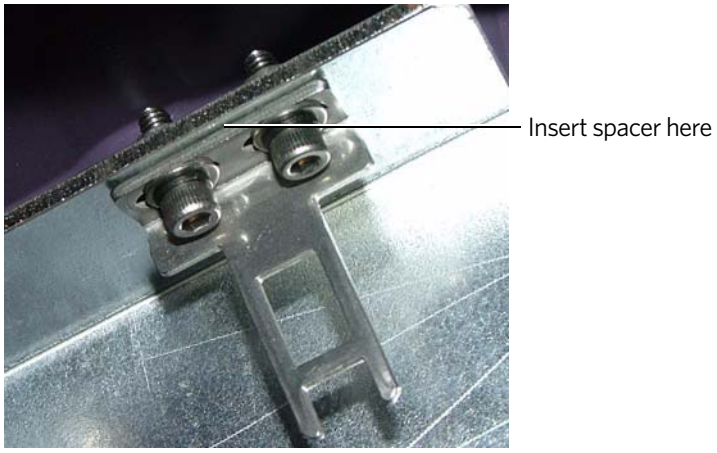


Figure 9: Interlock latch

3. Insert a spacer between the interlock latch assembly and the mainframe or door on which the assembly is secured.



Figure 10: Spacer

4. Using the marked outline as a guide, reinstall the interlock latch.
5. Verify the position of the interlock latch. See *Verifying Interlock Latch Positions* on page 5.

Testing the Interlocks on the Doors and Panels

Upper-Rear Door Interlocks

The upper-rear door interlocks are located on the right and left sides of the platesetter. To test and adjust the upper-rear door interlocks, use the thinner upper-rear door (unload) interlock adjustment jig (part number 690-00737A).

Testing the Upper-Rear Door Clearance

1. On the right side of the platesetter, insert the jig leg between the upper-rear door and the rear panel.



Figure 11: Testing the clearance between the upper-rear door and rear panel

2. Verify that there is no excess play between the parts being tested. If there is excess play, adjust the locker position. To adjust the locker position, see *Adjusting the Interlock Latch Position* on page 6.

   Note: Slight play is normal and allowed in this location only.

3. Repeat steps 1 to 2 on the left side of the platesetter.

Adjusting the Upper-Rear Door Locker

➢ See *Adjusting Lockers* on page 4.

Testing the Upper-Rear Door Interlock Latch Depth

1. Set the DVM to ohm position. See *Testing the DVM* on page 6.
2. To test the upper-rear door interlock latch depth, perform the steps in *Testing the Interlock Latch Depth* on page 7.

   Note: If you added or removed spacers to adjust the interlock latch depth, you must test the interlock latch position. See Testing the Interlock Latch Position on page 5.
3. Repeat steps 1 to 2 on the left side of the platesetter.

Testing the Front Door Interlocks

To reach the front door interlocks (located on the left and right sides of the platesetter), you must remove the front panel. To test and adjust the front door interlocks, use the thicker front door (load) interlock adjustment jig (part number 690-00738A).

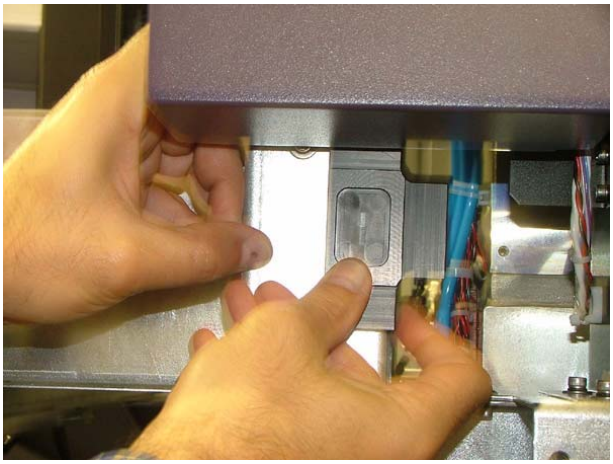


Figure 12: Front door interlock

Testing Front Door Clearance

1. Remove the front panel.
2. On the left side of the front door, insert the jig leg between the front door and mainframe.
3. Verify that there is no excess play between the parts being tested. If there is excess play, adjust the locker position, as described in *Adjusting the Front Door Locker* on page 11.
4. Repeat steps 2 to 3 on the right side of the front door.

Adjusting the Front Door Locker

1. Loosen the three screws that secure the locker to the mainframe.

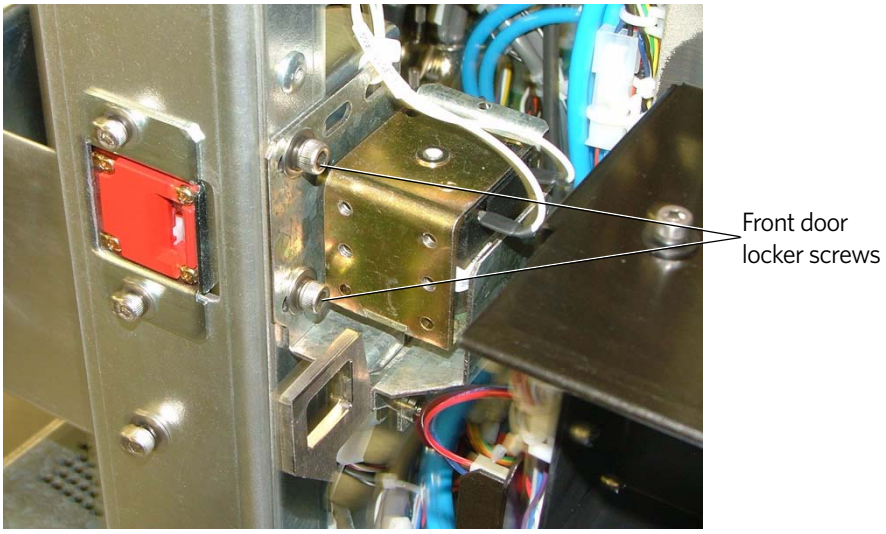


Figure 13: Loosening the locker screws

2. Adjust the locker position, and then tighten the screws.
   - For excess play, lower the locker position.
   - For little or no play, raise the locker position.
3. Test the clearance.

Testing the Front Door Interlock Latch Depth

1. Set the DVM to ohm position. See *Testing the DVM* on page 6.
2. To test the front door interlock latch depth, perform the steps in *Testing the Interlock Latch Depth* on page 7.

   Note: If you added or removed spacers to adjust the interlock latch depth, you must test the interlock latch position. See Testing the Interlock Latch Position on page 5.
3. Repeat steps 1 to 2 on the right side of the front door.

Testing the Rear and Front Panel Interlocks

The rear and front panels on the platesetter are secured to the mainframe and do not require clearance testing.

The rear panel interlock is located at the top center of the panel.

The front panel interlocks are located on the left and right sides of the front panel.

To test and adjust the rear and front panel interlocks, use the rear/front panel interlock adjustment jig (part number 690-00723A) and the interlock four-pin jig (220-01407A).

Note: Test the front panel interlocks on manual platesetters only.

Testing the Rear and Front Panel Interlock Latch Depth

1. To test the interlock latch depth on the rear panel, perform the steps in *Testing the Interlock Latch Depth* on page 7.
   a. Insert the thin-sided jig edge between the top-center of the rear panel and the mainframe. The DVM should beep. If the DVM does not beep, add spacers to adjust the interlock latch depth. See *Adjusting the Interlock Latch Depth* on page 8.



Figure 14: Testing the rear panel interlock latch depth

   b. Insert the thick-sided jig edge between the top-center of the rear panel and the mainframe. The DVM should not beep. If the DVM does beep, remove spacers to adjust the interlock latch depth. See *Adjusting the Interlock Latch Depth* on page 8.

Note: If you added or removed spacers to adjust the interlock latch depth, you must test the interlock latch position. See Testing the Interlock Latch Position on page 5.

2. To test the interlock latch depth on the front panel, perform the steps in *Testing the Interlock Latch Depth* on page 7.

   a. On the left side of the front panel, insert the thin-sided jig edge between the panel and the mainframe, opposite to and level with the Omron interlock assy. The DVM should beep. If the DVM does not beep, add spacers to adjust the interlock latch depth. See *Adjusting the Interlock Latch Depth* on page 8.

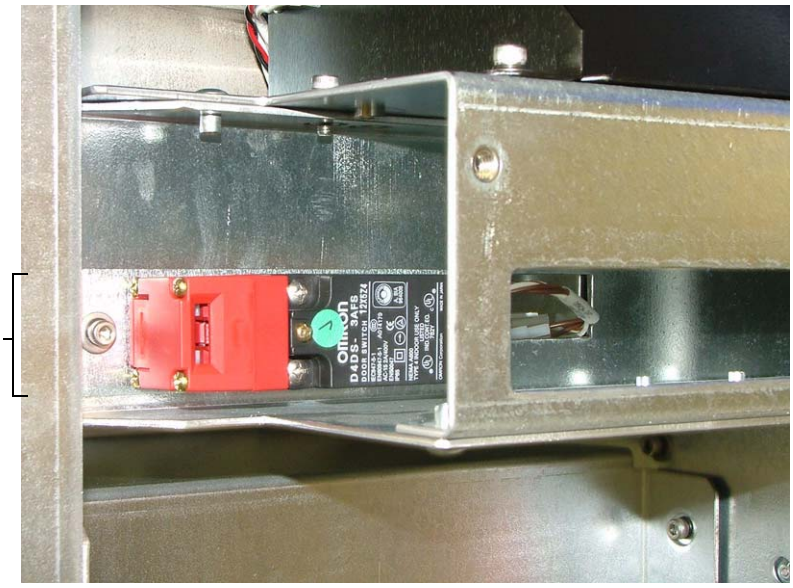


Figure 15: Front panel interlock

   b. Insert the thick-sided jig edge between the panel and the mainframe, opposite to and level with the Omron interlock assy. The DVM should not beep. If the DVM does beep, remove spacers to adjust the interlock latch depth. See *Adjusting the Interlock Latch Depth* on page 8.

   c. Repeat steps 2a and 2b on the right side of the front panel.

Note: If you added or removed spacers to adjust the interlock latch depth, you must test the interlock latch position. See Testing the Interlock Latch Position on page 5.

Testing the Side Door Interlocks

The side door interlocks are located under the local3 box (two lockers on each side door). To test and adjust the side door interlocks, use the side door red aluminum-coated interlock adjustment jig (part number 690-00736A).

Testing the Side Door Clearance

1. With the left side door closed, insert the jig leg between the door stopper and the mainframe, near to the Omron interlock assembly.

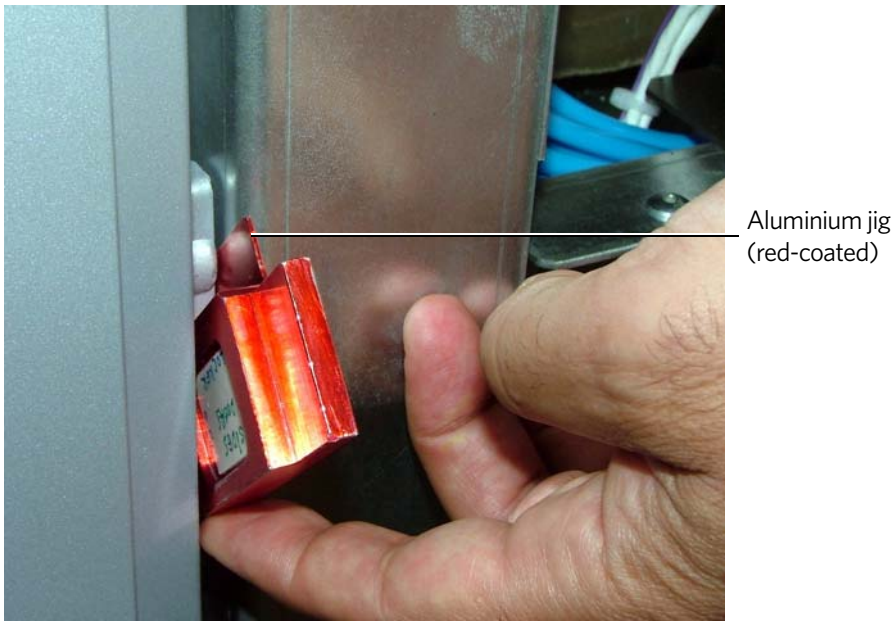


Figure 16: Testing the clearance between the side door and mainframe

2. Verify that there is no excess play between the parts being tested. If there is excess play, adjust the locker position. See *Adjusting the Side Door Lockers* on page 15.
3. Repeat steps 1 to 2 on the right side door.

Adjusting the Side Door Lockers

Note: There are two lockers on each side door. Make sure that both lockers are properly adjusted.

1. On the left side door, loosen the two screws that secure the locker to the mainframe.



Figure 17: Loosening the side door interlock locker screws

2. Adjust the locker position, and then tighten the screws.
   - For excess play, lower the locker position.
   - For little or no play, raise the locker position.
3. Test the clearance.
4. Repeat steps 1 to 3 on the right side door.

Testing the Side Door Interlock Latch Depth

1. Set the DVM to ohm position. See *Testing the DVM* on page 6.
2. To test the left side door interlock latch depth, perform the steps in *Testing the Interlock Latch Depth* on page 7.

   Note: If you added or removed spacers to adjust the interlock latch depth, you must test the interlock latch position. See Testing the Interlock Latch Position on page 5.

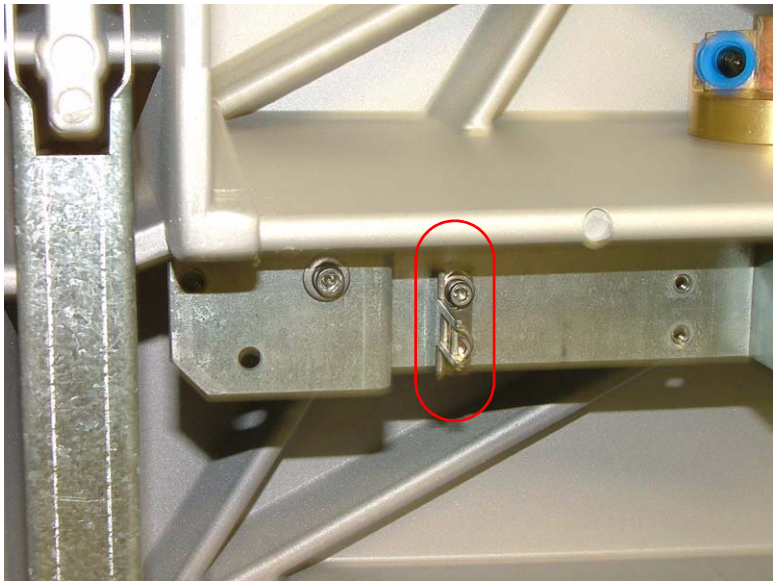


Figure 18: Side door interlock latch

3. Repeat step 2 on the right side door.

Technical Contact(s)

Content owner: Mario Amir

See the Escalation page for escalation contacts.

Date Submitted

08 Oct 2006

Last Updated