



An Oshkosh Corporation Company

**Service Information Bulletin:
SIB 12-18**

Date: December 4, 2012

To: JLG Service Customers/Service Providers
Models Affected: JLG ES Scissors built with software prior to P1.4
Subject: Software Update for Units with Sevcon Controllers

INFORMATION ONLY

Reports from the field indicate that discrepancies in code reporting may occur when a platform control station running software revisions prior to P1.4 is installed on a newer ES Scissor Lift equipped with a Zapi manufactured controller. This combination results in a software communication error between the Zapi controller and the platform control station.

In an effort to support control station interchangeability, JLG has created software which will allow platform control station interchangeability between machines equipped with either Sevcon or Zapi controllers. Please refer to instruction (3121467) which is attached for your convenience.

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ES Programming Instructions for Mixed Fleets

Instructions

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Software update for mixed fleets of ES scissor lifts equipped with Sevcon and Zapi modules. It is possible to move a platform control box between an ES scissor equipped with a Sevcon control module and an ES scissor equipped with a Zapi control module. If interchangeability between machines is needed, it is recommended for the platform control modules to be updated to Version P1.4 or greater. One ES scissor equipped with Sevcon control module must be available to use to update other platform control modules.

It is recommended that you read and thoroughly understand these instructions before starting this procedure.

NOTICE

Use all applicable Safety precautions while working on, around or under any machinery.

Models Affected:

- 1930ES
- 2030ES
- 2630ES
- 2646ES
- 3246ES

Options/Accessories Prohibited When Installing This Kit:

- None

Hardware/Software Requirements:

- PC or laptop computer - (minimum requirements) Windows-98SE, Pentium-II
- JLG Handheld Analyzer (JLG P/N: 2901443)
- JLG Software Download Cable
 - P/N: 1060629 for RS-232 connection
 - P/N: 1001137005 for USB connection

Tools & Equipment Required:

- JLG Handheld Analyzer (P/N: 2901443) is required to validate the software version before and after downloading.
- USB to RS232 cable (P/N: 1001137005). USB to RS232 (Serial Port) Adaptor made by FTDI may also be used in conjunction with JLG P/N 1060629. These adaptors are available at most electronics stores.

Personnel Required:

- Qualified JLG equipment mechanic



Preparation:

1. Identify an ES Machine with a Sevcon Module by looking at the Side View (Ref: Figure 1) or Connector View (Ref: Figure 2) of the ES Ground Control Module.

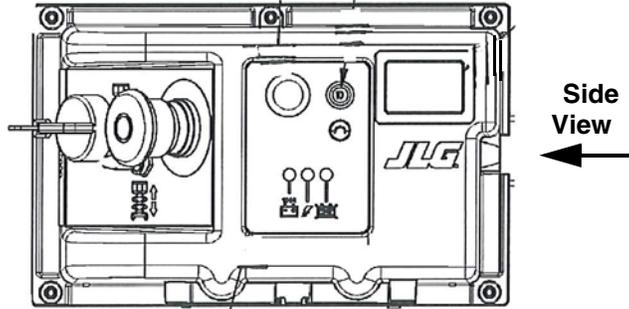
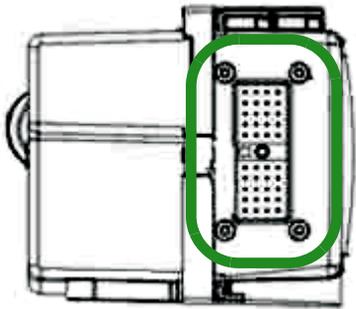


Figure 1: Side View

Note: Connector views below (Ref: Figure 2) indicates if machine is equipped with a Sevcon or Zapi Control Module.

Machines equipped with Sevcon module



Machines equipped with Zapi module

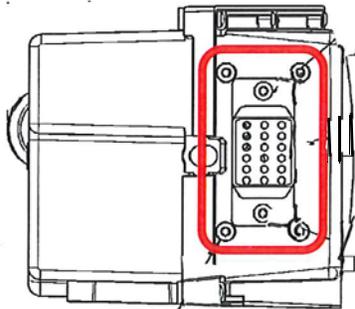


Figure 2: Connector View

2. At the Ground Control Box, turn the key fully clockwise to ground control mode and pull the emergency stop button out.
3. On the side of the machine with the ground control module, open the battery box. Between the batteries and the ground control module, find and plug the Analyzer Connector (Ref: Figure 3) into the JLG Handheld Analyzer and follow the instructions below.



Figure 3: Analyzer Connector

4. Go to MENU
 - Scroll to DIAGNOSTICS (hit: ENTER)
 - Scroll to VERSIONS (hit: ENTER)
 - Record the POWER MOD value.
 - If the value is less than 1.8, either repeat steps 1-3 on another machine or follow instructions JLG P/N: 4150573 (see attached) for programming the Ground Module to P1.8 or greater.
 - If the value is 1.8 or greater, follow instructions JLG P/N: 1001127052 (see attached) for programming the Platform Module. Using the same machine, replace the platform control box with the next platform control box and repeat this step for every platform control box requiring software update.



4150573 Revision 2 Machine Programming Instructions ES Ground and Platform Modules

Hardware/Software Requirements:

PC or laptop computer – (*minimum requirements*) Windows-98SE, Pentium-II,

4170032 – ES Ground Software

4170033 – ES Platform Software (if needed)

2901443 - JLG Handheld Analyzer

1060629 - JLG Interface Cable

Tools Required:

JLG Handheld Analyzer (p/n: 2901443) is required to validate the software version before and after downloading.

USB to Serial port adapter cable can be used in conjunction with the JLG Interface Cable (1060629). Its use is required if your computer does not have a serial port. This adapter is available at most electronics stores.

Purpose for Procedure:

This procedure will update the ES ground module and platform module software.

Check the Current Software Version and Record Machine Setup and Personality Settings

1. Turn the key fully clockwise to ground control mode and pull the e-stop out.
2. On the side with the ground control module, open the battery box. Between the batteries and the ground control module, find and plug the JLG Analyzer (2901443) into the analyzer port. See the below picture.



- Record the settings in the MACHINE SETUP and PERSONALITIES sub-menus. You will lose these when you update the software, so make sure you have a hardcopy. If you have lost these settings, get documents 4150472 and 4150473 for the factory specification for these settings. Go to MENU, scroll to MACHINE SETUP (hit ENTER) and scroll through that menu, recording the values. After recording all of that information, hit ESCAPE, scroll to PERSONALITIES (hit ENTER) and scroll through that menu, again recording the values.
- Using the JLG Analyzer to check version level of the board:
Go to MENU, scroll to DIAGNOSTICS (hit ENTER)
Scroll to VERSIONS (hit: ENTER)

EASYLOADER PROCESS:

- Connect Interface Cable (p/n 1060629) from COM 1 of your computer (9 pin serial connector) or USB port to the analyzer port in the battery box. If you are updating the ground module software, go to step 2. If you are just updating the platform module, go to step 6.
- Turn the key fully clockwise to ground control mode and pull the e-stop out to power the ground module.
- Run the easy downloader file named something like #4170032vPX-XX.exe. Click on the large program box, in the center of the downloader. The downloader will show which software version is in the board and which version it is attempting to program to the board. Click 'Yes' to replace the software. A progress bar will appear after the download process begins. When download is complete, a message 'Successfully Programmed' will appear. If there are any problems with this step, go to step 5.
- Run the downloader again by opening #4170032vPX-XX.exe. The downloader will show which software version is in the board and which version it is attempting to program to the board. If both of those versions match, click 'No,' exit the downloader. If you do not need to update the platform module software, go to step 10, otherwise go to step 6. If there are any problems with this step, go to step 5.
- If the downloader displayed 'Unable to initialize port: COM1,' there is probably another program already using COM1 port. Either, change the port that is being used by the downloader, or disable the program that is using the COM1 port. The downloader automatically determines which COM ports are available on the computer. Choose a different COM port with the pull-down menu in the upper right corner of the downloader. If the downloader displayed 'Could not establish communications,' make sure the download cable is connected correctly and the download cable is attached to the COM port the downloader is trying to use. If the downloader still has problems, follow the bootstrap download process above.
- Press the e-stop on the ground module, and pull it out again. Turn the key fully counter-clockwise to the platform position. Pull the e-stop out on the platform module. Keep your computer connected as described in step 1.
- Run the easy downloader file named something like #4170033vPX-XX.exe. Click on the large program box, in the center of the downloader. The downloader will show which software version is in the board and which version it is attempting to program to the board. Click 'Yes' to replace the software. A progress bar will appear after the download process begins. When download is complete, a message 'Successfully Programmed' will appear. If there are any problems with this step, go to step 9.
- Run the downloader again by opening #4170033vPX-XX.exe. The downloader will show which software version is in the board and which version it is attempting to program to the board. If both of those versions match, click 'No,' exit the downloader, and go to step 10. If there are any problems with this step, go to step 9.

9. If the downloader displayed 'Unable to initialize port: COM1,' there is probably another program already using COM1 port. Either, change the port that is being used by the downloader, or disable the program that is using the COM1 port. The downloader automatically determines which COM ports are available on the computer. Choose a different COM port with the pull-down menu in the upper right corner of the downloader. If the downloader displayed 'Could not establish communications,' make sure the download cable is connected correctly and the download cable is attached to the COM port the downloader is trying to use. If the downloader still has problems, follow the bootstrap download process above.
10. Return the Machine Settings and Personalities to what they were before reprogramming the machine. Be sure to toggle the Model Number under Machine Settings. After loading these settings, turn the key to the middle position and press both of the e-stops. You are finished.



1001127052 Revision B Machine Programming Instructions ES Ground and Platform Modules

Hardware/Software Requirements:

PC or laptop computer – (*minimum requirements*) Windows-98SE, Pentium-II,
1001096495 – ES Ground Software
4170033 – ES Platform Software (if needed)
2901443 - JLG Handheld Analyzer
1060629 - JLG Interface Cable

Tools Required:

JLG Handheld Analyzer (p/n: 2901443) is required to validate the software version before and after downloading.

USB to Serial port adapter cable can be used in conjunction with the JLG Interface Cable (1060629). Its use is required if your computer does not have a serial port. This adapter is available at most electronics stores. Adapters made by FTDI are recommended for programming this module.

Purpose for Procedure:

This procedure will update the ES ground module and platform module software.

Check the Current Software Version and Record Machine Setup and Personality Settings

1. Turn the key fully clockwise to ground control mode and pull the e-stop out.
2. On the side with the ground control module, open the battery box. Between the batteries and the ground control module, find and plug the JLG Analyzer (2901443) into the analyzer port. See the below picture.



3. Record the settings in the MACHINE SETUP and PERSONALITIES sub-menus. You will lose these when you update the software, so make sure you have a hardcopy. If you have lost these settings, get documents 1001115626 and 1001115627 for the factory specification for these settings.
Go to MENU, scroll to MACHINE SETUP (hit ENTER) and scroll through that menu, recording the values. After recording all of that information, hit ESCAPE, scroll to PERSONALITIES (hit ENTER) and scroll through that menu, again recording the values.
4. Using the JLG Analyzer to check version level of the board:
Go to MENU, scroll to DIAGNOSTICS (hit ENTER)
Scroll to VERSIONS (hit: ENTER)

EASYLOADER PROCESS:

1. Connect Interface Cable (p/n 1060629) from COM 1 of your computer (9 pin serial connector) or USB port to the analyzer port in the battery box. If you are updating the ground module software, go to step 2. If you are just updating the platform module, go to step 6.
2. Turn the key fully clockwise to ground control mode and pull the e-stop out to power the ground module.
3. Run the easy downloader file named something like #1001096495vPX-XX.exe. Click on the large program box, in the center of the downloader. The downloader will show which software version is in the board and which version it is attempting to program to the board. Click 'Yes' to replace the software. A progress bar will appear after the download process begins. When download is complete, a message 'Successfully Programmed' will appear. If there are any problems with this step, go to step 5.
4. Run the downloader again by opening #1001096495vPX-XX.exe. The downloader will show which software version is in the board and which version it is attempting to program to the board. If both of those versions match, click 'No,' exit the downloader. If you do not need to update the platform module software, go to step 10, otherwise go to step 6. If there are any problems with this step, go to step 5.
5. If the downloader displayed 'Unable to initialize port: COM1,' there is probably another program already using COM1 port. Either, change the port that is being used by the downloader, or disable the program that is using the COM1 port. The downloader automatically determines which COM ports are available on the computer. Choose a different COM port with the pull-down menu in the upper right corner of the downloader. If the downloader displayed 'Could not establish communications,' make sure the download cable is connected correctly and the download cable is attached to the COM port the downloader is trying to use.
6. Press the e-stop on the ground module, and pull it out again. Turn the key fully counter-clockwise to the platform position. Pull the e-stop out on the platform module. Keep your computer connected as described in step 1.
7. Run the easy downloader file named something like #4170033vPX-XX.exe. Click on the large program box, in the center of the downloader. The downloader will show which software version is in the board and which version it is attempting to program to the board. Click 'Yes' to replace the software. A progress bar will appear after the download process begins. When download is complete, a message 'Successfully Programmed' will appear. If there are any problems with this step, go to step 9.
8. Run the downloader again by opening #4170033vPX-XX.exe. The downloader will show which software version is in the board and which version it is attempting to program to the board. If both of those versions match, click 'No,' exit the downloader, and go to step 10. If there are any problems with this step, go to step 9.

9. If the downloader displayed 'Unable to initialize port: COM1,' there is probably another program already using COM1 port. Either, change the port that is being used by the downloader, or disable the program that is using the COM1 port. The downloader automatically determines which COM ports are available on the computer. Choose a different COM port with the pull-down menu in the upper right corner of the downloader. If the downloader displayed 'Could not establish communications,' make sure the download cable is connected correctly and the download cable is attached to the COM port the downloader is trying to use.
10. Return the Machine Settings and Personalities to what they were before reprogramming the machine. Be sure to toggle the Model Number under Machine Settings. After loading these settings, turn the key to the middle position and press both of the e-stops. You are finished.