



# ***Installation instructions***

## ***ALC500 Software***

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## WebGPI Application Install Program Procedures

Note: The application installation file loads the software onto your PC/laptop for use with the WebGPI program.

1. Click on the application installation file link in the Software Matrix.
2. When prompted, select Run.
3. When the Software License Agreement window appears, select Yes on the license agreement.
4. Pick the location of the WebGPI folder on your computer (It is recommended to use the default location unless WebGPI has been installed in a different folder). Click Next.
5. On the Setup Type window, "Typical" should already be selected. Select Next.
6. The files will be installed.

Open WebGPI Application Interface Procedure

## Boot File Download

Note: Boot file download may be performed with PC/laptop using WebGPI 1.01 or higher, or using a Palm handheld with WebGPI-PDA version 1.30, build 27 or higher.

Note: This procedure is to extract the boot hex file onto your PC/laptop or Palm for use with the WebGPI program.

1. Click on the boot file link in the Software Matrix.
2. If prompted about running the file, select Ok. If prompted to run or save, select Run.
3. If a window appears about WinZip Self-Extractor licensing, Select OK.
4. Select Browse and pick the location of the WebGPI folder on your computer (Recommend using the default location for PC/laptop use unless WebGPI has been installed in a different folder) where you want the file unzipped. For handheld use, pick Browse and select the location of the WebGPI folder in your Palm user

directory on your computer (Example: C:\Palm\{user name}\WebGPI). Select OK.

5. For WinZip Self-Extractor, select Unzip. The file will be extracted to the chosen directory. Select OK.
6. Select Close if required.
7. If using Palm, HotSync Palm to PC/laptop to load the file in WebGPI-PDA program on the Palm.

## Kernel File Download

Note: A PC/laptop or a Palm OS handheld with WebGPI-PDA version 1.30, build 27 or higher, is needed to download a kernel file to a control board.

Note: This procedure is to extract the kernel file onto your PC/laptop or Palm for use with the WebGPI program.

1. Click on the kernel file link in the Software Matrix.
2. If prompted about running the file, select Ok. If prompted to run or save, select Run.
3. If a window appears about WinZip Self-Extractor licensing, Select OK.
4. Select Browse and navigate to the C:\Program Files\Sauer-Danfoss\WebGPI\KernelFiles (this should be the default location for PC/laptop use unless WebGPI has been installed in a different folder) or an alternate directory where you want the file unzipped. For handheld use, pick Browse and select the location of the WebGPI folder in your Palm user directory on your computer (Example: C:\Palm\{user name}\WebGPI). Select OK.
5. For WinZip Self-Extractor, select Unzip. The file will be extracted to the chosen directory. Select OK.
6. Select Close if required.
7. If using Palm, HotSync Palm to PC/laptop to load the file in WebGPI-PDA program on the Palm.

Open WebGPI Kernel Download Procedure to download to the control card

## WebGPI Application Interface Procedure

To interface with a control board, you need:

- WebGPI version 1.01a or later installed on the computer,
- Available COM port,
- RS-232 cable (serial cable, 9-pin),
- For S100/120 machines T-Harness part number 75094,
- Internet Explorer 5.0 or later, and
- The appropriate application (\*.exe) installed on the computer.

1. Power up the PC/laptop.
2. Connect RS-232 cable or T-Harness to PC/laptop.
3. Connect other end of RS-232 cable to the control board you want to interface. For S100/120 connect the T-Harness to the control box and the existing harness.
4. Open WebGPI.
5. Power up the control board
6. Select Connect on the buttons at the top of the screen. (If WebGPI fails to connect, make sure there is power to the control board then select Connect again)
7. Select Application button (next to where the Connect button has now changed to read Disconnect).
8. A list of folders/items you can look at displays on the left side of the window.
9. From the menu, select screen to display. ONLY use screens for the machine and engine programmed on the board. Machine model and engine can be found on the Models Specification screen on the ALC-500 or the Machine screen on the ALC1000 software.
10. If programming the board after a software download, set model and engine configuration first. Machine model and engine can be found in the Setup folder and select Model screen on the ALC-500 or the Machine screen on the ALC1000 software.
11. Click on a folder and select an item in the list to view in the window.
12. To change an item, highlight the item in the window, type in the new value or pick from the list and select Send to save the change to the control board.
13. To change back to factory defaults values for the screen, select Default.
14. To end connection to the control board, select Disconnect button.

## WebGPI Kernel Download Procedure

To interface with a control board, you need

- WebGPI version 1.01a or later installed on the computer,
- Available COM port,
- RS-232 cable,
- For S100/120 machines T-Harness part number 75094,
- And the appropriate application (\*.exe) installed on the computer.

1. Power up the PC/laptop.
2. Connect RS-232 cable or T-Harness to PC/laptop.
3. Connect other end of RS-232 cable to the control board you want to download to. For S100/120 connect the T-Harness to the control box and the existing harness.
4. Open WebGPI.
5. If you are upgrading software on a machine follow steps 6 through 8, otherwise go to step 9.
6. Select Connect on the buttons at the top of the screen.
7. Select Application.
8. For ALC500, look at each valve function and record the max out value for each function (A list of folders/items you can look at displays on the left side of the window.  
  
Example: Fwd, Rev, Boom 1 Up, Boom 1 Down...). On Z80 and S100/120 machines, record neutral voltage values for each steer sensor, turntable level sensors, and angle values for the PBAS (Z80 only).
9. Select Download on the buttons at the top of the screen.
10. Select Microcontroller Type below the buttons. Note: For PC/laptops using WebGPI version 1.01a, use HC08A for HC12 Microcontroller type.
11. For ALC1000 or S100/120, the boot file needs to be downloaded before the kernel can be downloaded.
12. For WebGPI 1.01 download the kernel as an application.
13. Select the kernel file you need to download to the card by using search. Kernel files are found at C:\Program Files\Sauer-Danfoss\WebGPI\KernelFiles\<kernel file>.hex.

NOTE: Downloading a kernel to a control card will wipe out ALL information currently on the card.

14. Click Download to begin downloading to the control board. The HC12 Microcontroller requires a Force Download for the kernel download. If downloading does not begin in a few seconds and an error message appears, select Force Download and follow the instructions on the screen.

15. Cycle the power to the control card to complete the download process.

16. To end connection to the control board, select Exit button. To load an application, click here to go to the WebGPI Application Download Procedure.

## WebGPI Application Download Procedure

To download the application to a control board, you need:

- WebGPI version 1.01a or later installed on the computer,
- Available COM port,
- RS-232 cable,
- For S-1XX machines T-Harness part number 75094, and
- The appropriate application (\*.exe) installed on the computer.

1. Power up the PC/laptop.

2. Connect RS-232 cable or T-Harness to PC/laptop.

3. Connect other end of RS-232 cable to the control board you want to download to. For S100/120 connect the T-Harness to the control box and the existing harness.

4. Power the control board.

5. Open WebGPI.

6. Select Connect on the buttons at the top of the screen. (Note: Button text changes to Disconnect and penguin to the right of the buttons changes to a flying bird when WebGPI is connected to the control card.)

7. Select Application.

8. If you are updating the software on the control card, for ALC-500, look at each valve function and record the max out value for each function (Example: Fwd, Rev, Boom 1 Up, Boom 1 Down...). For Z80 and S100/120 machines, record neutral voltage values for each steer sensor, turntable level sensors (both X and Y), and angle values for the PBAS (Z80 only). If you are downloading an application after a kernel download, only the program default values will be present and need not be recorded.

9. Select Disconnect.

10. Select Download. (If error message for no Microcontroller selected appears, select Ok)

11. Select Microcontroller Type below the buttons. Note: For PC/Laptops using WebGPI v1.01a, use HC08A for HC12 Microcontroller Type.

12. Select Search next to the Application-File menu and open C:\Program Files\Sauer-Danfoss\WebGPI\- 13. Select Download.
- 14. When download is complete, cycle power to the control board.
- 15. Select Exit.
- 16. Select Connect.
- 17. Select Application.
- 18. Select Set All Defaults for final step of application installation.
- 19. If values were recorded prior to application download, enter those values into the appropriate screens (See WebGPI Interface Procedure step 10 for changing values.).
- 20. To end connection to the control board, select Disconnect button.

## WebGPI Application Download Procedure for ALC500 Gen II PCB

To download the application to a control board, you need:

- WebGPI version 3.0 or later installed on the computer,
- Available COM port,
- RS-232 cable,
- The appropriate application (\*.exe) installed on the computer.

1. Power up the PC/laptop.
2. Connect RS-232 cable or T-Harness to PC/laptop.
3. Connect other end of RS-232 cable to the control board you want to download to.
4. Power the control board.
5. Open WebGPI.
6. Select Connect on the buttons at the top of the screen. (Note: Button text changes to Disconnect and penguin to the right of the buttons changes to a flying bird when WebGPI is connected to the control card.)
7. Select Application on the buttons at the top of the screen.
  - a) If you are updating the software on the control card, look at each valve function and record the threshold and max out value for each function (Example: Fwd, Rev, Boom Up, Boom Down, etc.).
8. Select Disconnect on the buttons at the top of the screen.
9. Select Download. (Error message for no Microcontroller selected appears, select Ok, go to step 11)

10. Select Connect. (Microcontroller type will be automatically selected)
11. Select Kernel for File type.
12. Select Search next to the Operating System File menu and open C:\Program Files\Sauer-Danfoss\WebGPI\\- 13. Select Download in the File Type section, next to Exit button.
- 14. When download is complete, Kernel window will display 100%, cycle power to the control board.
- 15. Select Exit.
- 16. Select Connect.
- 17. Select Application.
- 18. Select Set All Defaults for final step of application installation.
- 19. If values were recorded prior to application download, enter those values into the appropriate screens (See WebGPI Interface Procedure step 10 for changing values.).
- 20. To end connection to the control board, select Disconnect button.