

SENSOR SYSTEMS

MEDICAL PRODUCTS DIVISION

Installation Procedure

BrainWave and BrainWaveSO

Software Installation

For GE Medical Systems

GE Document Part Number(s): **2359813** BrainWave Software installation manual

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ENI-0101-09-GE Installation Procedure
BrainWave Software Installation

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Introduction

This manual is divided into 2 parts.

- **Part A** for the installation of **BrainWave** and
- **Part B** for the installation of **BrainWaveSO** (software-only version of BrainWave).

Please go to the appropriate Part for the version of BrainWave you are installing. Note: You **CANNOT** have both versions of BrainWave installed. If you currently have a version of BrainWave installed be sure to run the uninstall script first (see Part B, section II, step 2).

The **BrainWave** system consists of the 3 major components.

- Primary user interface for scan control, processing and visualization software (on the Advantage Workstation),
- Stimulus presentation and paradigm development software (on the Stimulus PC)
- Stimulus presentation hardware (visual, audio and response button hardware - see hardware installation documentation).

The **BrainWaveSO** system (software-only version of BrainWave) has 1 component.

- Primary user interface for scan control, processing and visualization software (on the Advantage Workstation),

IMPORTANT NOTE: If you are installing BrainWave or BrainWaveSO over an existing version of BrainWaveSO please see Part B Section II-C “BrainWaveSO Save / Restore System Information” to save the current user defined paradigms otherwise they will be **lost**.

Supported Configurations

The following tables show MR Scanner, Advantage Workstation and RTIP option software prerequisites for BrainWave and BrainWaveSO option installation.

Scanner Software	AW Software	RTIP Software	BrainWave Software
cnv4.283B_M4_0140.c + protocols patch 2328352 rev 1 + Patch_CNV4_M4_08 / RTIP 020529	AW 4.0.5	2271261-5	2307843-2 BrainWave CD 2303343-6 NT Recovery Disk
9.1_M3 or later	AW 4.0.5	2271261-7	2307843-2 BrainWave CD 2303343-6 NT Recovery Disk
vh3_M3 or later (3T Eclipse)	AW 4.0.5	2271261-7	2307843-2 BrainWave CD 2303343-6 NT Recovery Disk
10.0_M4 or later (MGD/Excite)	AW 4.0.5	2271261-7	2307843-2 BrainWave CD 2303343-6 NT Recovery Disk

Scanner Software	AW Software	RTIP Software	BrainWaveSO Software
cnv4.283B_M4_0140.c + protocols patch 2328352 rev 1 + Patch_CNV4_M4_08 / RTIP 020529	AW 4.0.5	2271261-5	2337089 BrainWaveSO CD
9.1_M3 or later	AW 4.0.5	2271261-7	2337089 BrainWaveSO CD
vh3_M3 or later (3T Eclipse)	AW 4.0.5	2271261-7	2337089 BrainWaveSO CD
10.0_M4 or later (MGD/Excite)	AW 4.0.5	2271261-7	2337089 BrainWaveSO CD

Required information prior to the installation process:

- **IP address and netmask to be used with the Stimulus PC (Microsoft Windows NT workstation - NeuroActivator Machine).**
- **IP address and host name of the GE Advantage Workstation 4.0**
- **BrainWave license key, AW workstation**
- **NeuroActivator research version license key, NT workstation (paradigm editing)**

Optional Information and Equipment:

- **Root password for the AW workstation (required for printer setup/installation)**
- **Color Postscript® printer**

Organization of the Instructions in this Manual

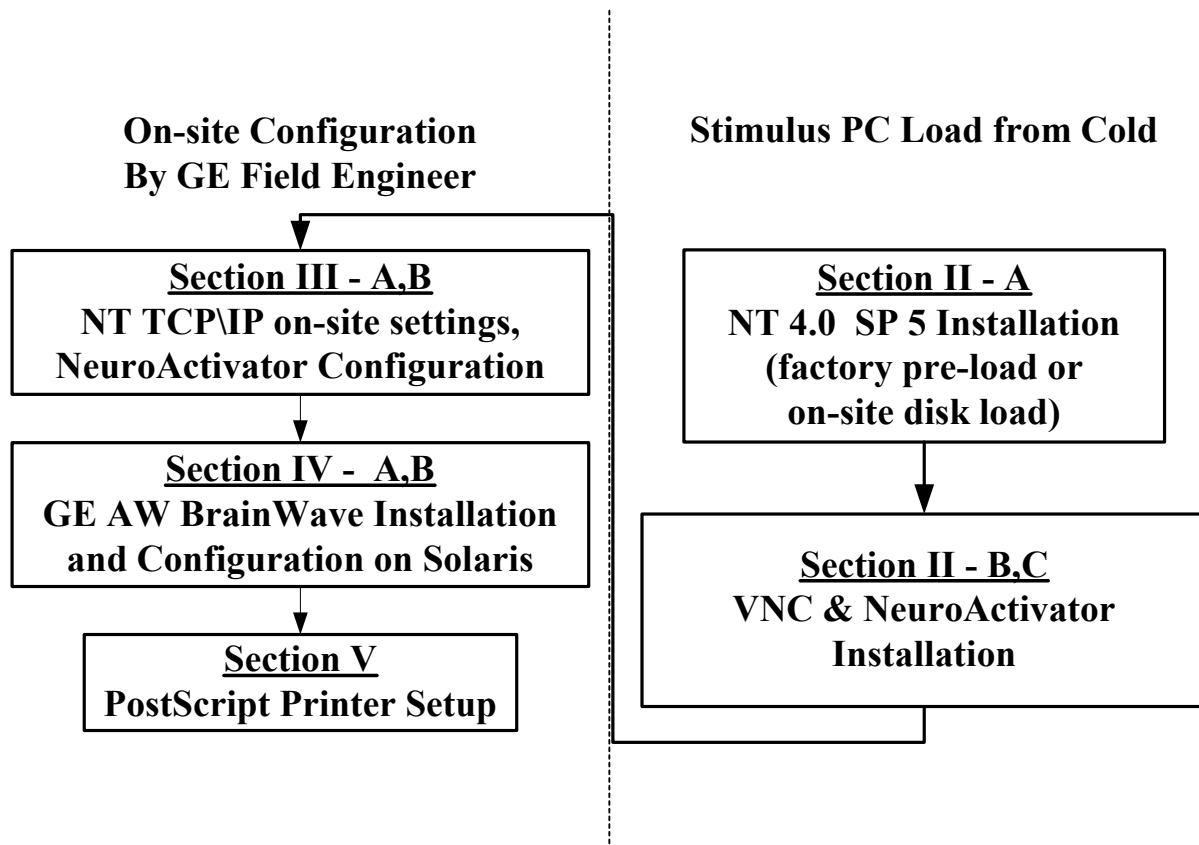
You will find all important words in **bold** for your convenience. This document is formatted into two columns whereby experienced users can quickly reference the key words to the left and new users of this manual can get detailed step instructions on the right side. These columns are thus labeled **Advanced Users** and **New Users**.

Part A - BrainWave Installation

I. Part A - Introduction

The following steps outline the complete installation procedure for BrainWave software. Note that the installation of stimulus PC software can normally be skipped as this is performed in manufacturing prior to customer shipment.

- I. Stimulus PC operating system software load from cold (normally can be skipped during initial installation)
- II. Stimulus PC application software load from cold (again, can normally be skipped)
 - Load and start PC virtual communications software (VNC)
 - Load and start BrainWave stimulus presentation and paradigm development software (Sensor Systems' "NeuroActivator").
- III. Stimulus PC site specific configuration.
- IV. Advantage Workstation BrainWave software load and configuration.
- V. Optional Postscript printer setup.



Stimulus PC Load from Cold

A. Windows NT 4.0 SP –6 Installation

The Windows NT software is preloaded at the factory or can be loaded on-site from CD if needed. **DO NOT** change the display settings from 800x600, 256 colors. This section is only required if a reload is needed. For new installations, start with Section III “On- Site Configuration”.

Advanced Users

New Users

Insert “NT Recovery Disk for BrainWave Option” CD	1. Insert the “NT Recovery Disk for BrainWave Option” CD into the NT workstation’s CD-ROM drive. (GE part number 2303343-6)
Start -> Shutdown (w/ auto restart)	2. Shutdown the PC with automatic restart selected.
Autoload	3. The system will auto-boot from the CD and load the software. Wait a few minutes until the following message appears, “The software installation is complete. Please remove the CD and reboot.”
Remove CD	4. Remove the CD from the CD-ROM drive.
CTRL-ALT-DEL	5. Press the CTRL-ALT-DEL keys simultaneously to reboot the PC. The PC will boot all the way to the standard start screen with no need for any additional operator intervention (i.e. no login required).

B. VNC Installation

Here we begin the installation of the VNC software from the BrainWave v 1.x CD ROM.

Advanced Users

New Users

Insert BrainWave v. 1.x CD	1. Insert the BrainWave v. 1.x CD into the NT workstation’s CD-ROM drive.
Select VNC	2. Use NT Explorer to go to <CDROM drive>:/VNC
Setup.exe	3. Double click the Setup.exe (or “Setup”) icon.
Ok	4. Click OK in the warning message dialog box.
Next	5. Click Next in the Welcome dialog box.
Yes	6. Click Yes in the SLA dialog box.
Next	7. Click Next . Leave the default destination folder.
Next	8. Click Next . Leave the default Program Folder entry.
Finish	9. Click Finish . The system may automatically reboot at this point.

<u>Install WinVNC Service</u>	10. Start -> Programs -> VNC -> Administrative Tools -> <u>Install WinVNC Service</u>
Ok	11. Click the “Ok” in the confirmation of service <u>installation</u> box.
<u>Start WinVNC Service</u>	12. Select from the NT taskbar: Start -> Programs -> VNC -> Administrative Tools -> <u>Start WinVNC Service</u> . (If you get an error, return to step 10 and reinstall.)
Ok	13. Click OK in the Warning dialog box.
Password = neuroactivator	14. Enter neuroactivator in the password field. (Caution: You <u>must</u> use this password.)
Ok	15. Click Ok.

C. NeuroActivator Installation for Windows NT 4.0 (SP- 6)

Stimulus Display Module (Window NT workstation). Note: VNC should be installed prior to installing NeuroActivator.

Advanced Users

New Users

Locate NeuroActivator on CD drive	1. Continue with installation of NeuroActivator (from Section II-C, the BrainWave CD-ROM should be in the computer, if not load the CD). Use NT Explorer to go to <CDROM drive>:/NeuroActivator (e.g. E:/NeuroActivator).
Double click Setup or Setup.exe	2. In the NeuroActivator folder, you should see an icon labeled Setup or Setup.exe . Double click on this icon. This launches the NeuroActivator Installation Wizard .
Next	3. Quickly read the material in the first page of the Installation Wizard, then click on the Next button at the page bottom.
Next	4. The next page allows you to choose the folder into which NeuroActivator will be installed. Unless there are overriding reasons, you should accept the default location, C:\Program Files\Sensor Systems, Inc.\NeuroActivator 1.x . Then click on the Next button.
Select all components Next Next	5. The next page allows you to choose components to install. For a new installation of NeuroActivator, select all components in the Select Components menu in order to ensure installation of the complete software (this is the default). Then click on the Next button and the second Next button to proceed with the installation. A status bar will fill from 0% to 100% as installation runs to completion.

Finish	6. In the final page click on the Finish button to exit the Installation Wizard .
Activate Research Version	7. Activate the Research Version (paradigm editor). Use NT Explorer to go to the location where NeuroActivator was installed. Under a standard installation this should be C:\ProgramFiles\Sensor Systems, Inc.\NeuroActivator 1.x .
Double click NeuroActivator_res.exe	8. Launch the research version of NeuroActivator by double clicking on NeuroActivator_res.exe.
Get license key	9. Contact Sensor Systems, Inc. for a license key and provide them with the System ID displayed (703 437-7344). (Note: If this is a field installation the license key should have been shipped with the NT system.)
Enter Key	10. Enter the license key. (See Note for previous step.)
Exit	11. Exit NeuroActivator research version.
Remove CD ROM	12. It is safe to remove the installation CD at this point.

II. On-Site Configuration

The following instructions are to be performed by a GE field engineer (FE) at the customer's site. This will begin with the Windows NT workstation configuration and continue with the configuration of NeuroActivator.

A. On-Site Windows NT TCP/IP Address Assignment

Advanced Users

New Users

Exit NeuroActivator	1. Move mouse to dismiss the flashing square. Right click on the image of the brain in the lower right hand corner (system tray) and click exit.
Start->Settings->Control Panel>Network	2. Launch the WinNT Network configuration utility. Go to Start->Settings->Control Panel (double click "Network" icon)
Protocols	3. Select the Protocols tab.
Select TCP/IP	4. Select the TCP/IP protocol.
Properties	5. Select the Properties button.
Enter: IP Address Subnet Mask Default Gateway	6. Assign a <u>static</u> IP address and network configuration settings based on the local network system administrator's directions. Do not select DHCP because a static IP address must be assigned. Make note of this IP address since it will be needed to configure BrainWave v. 1.x later.
Ok	7. Click Ok in the TCP/IP Properties dialog box.
Ok	8. Click Ok in the Network dialog box.

B. NeuroActivator Configuration

Advanced Users

New Users

Find NeuroActivator installation location	1. Use NT Explorer to go to the location where NeuroActivator was installed. Under a standard installation this should be C:\ProgramFiles\Sensor Systems, Inc.\NeuroActivator 1.x.
Find NeuroActivator_ Config or NeuroActivator_ Config.exe and double click	2. In the NeuroActivator folder, you will see an icon labeled NeuroActivator_Config or NeuroActivator_Config.exe . Double click on this icon to invoke the configuration program. The program asks for information about the Host Name, the IP address of the host, the Port (i.e., the network connection to the BrainWave console), and the local folder path on the PC where the stimulus program will store log files for data acquisition sessions.

Enter host name of the AW	3. For Host Name, type in the name of the Solaris machine running AW. For example, if this machine is named mrconsole.ge.com, type in “mrconsole” as the name.
Enter IP address of the AW	4. For IP, type in the IP address of the Solaris machine running AW. For example, if the IP address of this machine is 3.9.27.66, type in “3.9.27.66” as the IP address. Contact the network system admin. for this value. The IP address can also be obtained from the AW console window by examining the /etc/hosts file ‘more /etc/hosts’. Match the line with the hostname of the machine (the second entry of the output of ‘uname -a’ is the hostname).
Set Port to 3000	5. The port value should be set to 3000 unless there is a <u>higher priority</u> device already set to this location. If you do not use 3000, make note of the new number as you will need it to configure BrainWave later. Warning: Also confirm that there are no other machines running NeuroActivator on the same network with the same port number.
Accept default and click Save	6. Unless there are overriding reasons, you should accept the default location for the log files, C:\NeuroActivator\LogFiles . Next, click the Save option in the File menu.
Reboot? – Yes and then Exit Confirm the icons “NeuroActivator” and “VNC” in the lower right- hand taskbar	7. After clicking the Save option in the File menu, a dialog box will appear asking whether to reboot the PC when it exits. Click on the Yes button in the dialog box. Then quit the configuration program by selecting Exit under File . The PC will then reboot. NeuroActivator will automatically start and a flashing box will appear. This “screen-saver” is displayed to reduce the visual distractions the patient might see through the goggles while stimuli are not being delivered. Input from the mouse or keyboard will temporarily de-blank the screen. Two icons labeled “NeuroNavigator Stimulus Component” and “VNC” will appear in the NT Taskbar. If both icons do not appear, it is likely that the installation failed. (Note that in rare occasions the VNC icon does not always appear even though VNC is installed correctly.)
	8. For the proper functioning of the BrainWave system, NeuroActivator (clinical version) must be running and the flashing box displayed.*
Continue with Section IV.	Continue the process by going to Section IV to install BrainWave on the GE AW system.

*If you need to gain control of the system, exit NeuroActivator by right-clicking the NeuroActivator icon in the system tray (in the right corner of the TaskBar). In the popup menu, select **Exit** to exit NeuroActivator.

IV. GE AW BrainWave

A. BrainWave Installation for Solaris (AW)

Control/Analysis Module (GE AW 4.0 - UNIX machine)

Advanced Users

New Users

Log in sdc Tools-> Command Window	1. Log in as sdc and open a command window. (Browser Tab: Tools-> Command Window) The AW system should be idle with no remote users accessing the system or trying to send data.
Insert CD	2. Load the BrainWave 1.x CD ROM.
Type easyinstall	3. Run easyinstall by typing “easyinstall” at the command prompt. The easyinstall installation scripts will guide you through the installation of the software.
Driver: CD-Rom	4. Select Driver: CD-Rom.
Contents	5. Click the Contents button.
Install	6. Click the install button.
Enter license key	7. You will be prompted for the application license key, enter it and hit return. The rest of the installation will proceed automatically. Examine the message area for errors. Possible errors are: insufficient disk space (free up disk space in the \$SdC_IMAGE_POOL directory and try installing again), invalid license key (try installing again and entering the key again or request a new key after checking the system information required for key generation is correct).
Eject CD-ROM	8. Click the Eject CD-ROM button.
Quit Ok	9. Click the Quit button and then Ok to the reminder

B. BrainWave Configuration for Solaris (AW)

Advanced Users

New Users

Security -> Restart Software More Software-> BrainWave	1. To test if the installation was successful, shutdown the AW browser and restart it (Browser Tab: Security -> Restart Software). A popup box will ask “ Do you really want to restart the Software? ”. Click yes . Launch BrainWave (Browser Tab: More Software-> BrainWave .) The BrainWave GUI will pop up.
Main menu Manage System	2. Configure BrainWave: Select Main Menu at the bottom of the BrainWave GUI. Then select Manage System .

<p>Modify Configuration Defaults</p> <p>Enter password</p> <p>Update RTIP path</p>	<p>3. Select Modify Configuration Defaults and Set Mode. Enter a new password in the blank space. (i.e. "hello") Make note of the password you use. Under the Media Storage tab, check the values of the directories. The default values should be correct unless custom modifications have been made to RTC and the location of the RTIP database. Change the entry for the "Advantage Windows RTIP Directory" to reflect the local suite name (for example change 'GEM' to 'USF' in the path). Note only the first three letters of the suite name are used (e.g. "GEM" for suite id name "GEMS"). It is okay to leave the default value for the "BrainWave Database Directory".</p>
<p>Stimulus System</p> <p>Enter IP address</p> <p>Enter Port # - 3000</p>	<p>4. Select the Stimulus System tab. Enter the IP address of the NT workstation that is running NeuroActivator (i.e. 192.168.1.55). Match this to IP address as Section III,B step 4. Enter 3000 as the port number or match to the number set in Section III,B step 5.</p>
<p>Dicom</p> <p>Hostname</p> <p>IP of AW</p> <p>Port</p>	<p>5. Select the Dicom tab. Enter the information for the system where BrainWave will archive its studies. Contact the local network system administrator for this information. By default the local AW system is selected as is port 4006. You should enter the hostname and IP of the AW system. Note the default IP address selected is 127.0.0.1 which always points to the local machine. You may want to replace this with the actual IP address of the AW workstation.</p>
<p>Set Defaults Main Menu</p>	<p>6. Close the Configuration Defaults dialog box by selecting Set Modes and Save Config Settings. Return to the Main Menu.</p>
<p>Quit BrainWave</p> <p>Restart BrainWave</p>	<p>7. In this menu, quit BrainWave and then restart it by selecting the "more software" location and then BrainWave.</p>
<p>NeuroActivator connected - confirm</p>	<p>8. The BrainWave Messages panel in BrainWave will now display a message NeuroActivator connected. In BrainWave's Manage System interface, click on the button labeled Check Status of NeuroActivator. The BrainWave Messages panel in BrainWave will then display a message NeuroActivator is in idle mode. If you do not see these messages in the BrainWave Messages panel, something is wrong with the configuration, NeuroActivator is not currently running, or there is a problem with the network.</p>
<p>Close/exit</p>	<p>9. Close/exit the UNIX command window. This is the same location where easyinstall was initiated.</p>

V. Postscript® Printer Setup for use with BrainWave v. 1.x

This step is run on the AW Solaris Workstation. Currently only the Codonics color printer is supported. Text after the % should be typed in the command window. Text in ()'s are comments that should not be typed in.

Advanced Users

New Users

sdc Tools-> Command Window	1. Log in as sdc and open a command window. (Browser Tab: Tools-> Command Window)
% su -root	2. % su -root (you will need to type in the root password for the AW workstation)
% ~sdc/install/install.printers	3. If you have a printer provided by GE then type % ~sdc/install/install.printers For other printers skip to step 12
Return	4. If you have a Configuration Floppy you should insert it now. Whether you have one or not press [Return] to continue ...
y	5. Do you want to install new printer(s) [y,n,?,q] y
GENNavprntr	6. Define the local name of the printer [?,q] GENNavprntr (Note: You must use this printer name)
Enter selection [?,?,q]: 1	7. Installing Printer Printer model 1 c Codonics (1660M 1660MD) 2 1 Lexmark (Optra 1650N 1855N SC1275N C710n) 3 s Seiko (1720D)
Enter selection [?,?,q]: 1	8. Printer Type: 1 c Color printer 2 g Grayscale printer
Enter IP address	9. Printer internet (IP) address [?,q] ex. 192.168.1.101
Enter hostname	10. Printer hostname [?,q] ex. hp4050n Checking if hp4050n is alive ... Changing spool directory ... Print services stopped. Changing spool directory ... Print services started. Removing printer (if necessary) ... Declaring printer ... Setting filming configuration file ...
n	11. Do you want to install new printer(s) [y,n,?,q] n
Other printers	12. If you have a different printer, follow these steps.

sdc Tools-> Command Window	13. Log in as sdc and open a command window. (Browser Tab: Tools-> Command Window)
% su -root	14. % su -root (you will need to type in the root password for the AW workstation)
Generic method	15. % lpset -a bsdaddr=<printer_name>,scaled,Solaris GENNavprntr
Example	16. lpset -a bsdaddr=PS_RAD1,scaled,Solaris GENNavprntr

This concludes the necessary and optional installation instructions.

VI. Troubleshooting

1. If there are problems with speed of the mouse movement in the NT station window check to make sure the display settings have not been changed. They should be 800x600 and 256 colors. Start -> Control Panel -> Display
2. In general, if you are having problems with connections, be sure that you confer with your system administrator to ascertain the correct IP address and the port number.
3. Take note of the instructions in steps 10 and 12 in Section II,B whereby step 10 concerns the **INSTALLATION** of the **WinVNC Service** and step 12 concerns the **START** of the program.
4. Regarding the BrainWave installation on Solaris, if there is an “insufficient disk space” message in Section IV,A step 3, free up disk space in the \$SdC_IMAGE_POOL directory and try installing again.
5. Again with BrainWave on Solaris, if there is an “invalid license key” message, try to install the software again with the same key. If this doesn’t work, request a new key after confirming that the system information required for key generation is correct.
6. If you find in Section IV, B step 8 that NeuroActivator is NOT connected in the message dialog box, repeat step 7 by quitting BrainWave and restarting it.

Contact GE Service Personnel First

Sensor Systems, Inc. Phone Contact Information

(703) 437-7344

Part B - BrainWaveSO Installation

I. Part B - Introduction

This part contains the complete installation instructions for Sensor Systems' BrainWaveSO software. The SO version of BrainWaveSO consists of the AW component only.

II. GE AW BrainWaveSO

A. BrainWaveSO Installation for Solaris (AW)

Control/Analysis Module (GE AW 4.0 - UNIX machine)

Advanced Users

New Users

Log in sdc Tools-> Command Window	1. Log in as sdc and open a command window. (Browser Tab: Tools-> Command Window) The AW system should be idle with no remote users accessing the system or trying to send data.
Check for and uninstall previous versions.	2. Check for a previous BrainWave installation. Type the following in the command window: {sdc@aw}[#] cd {sdc@aw}[#] cd sensor (if directory does not exist then skip to step 3) {sdc@aw}[#] ./uninstall.brainwave
Insert CD	3. Load the BrainWaveSO 1.x CD ROM.
Type easyinstall	4. Run easyinstall by typing "easyinstall" at the command prompt. The easyinstall installation scripts will guide you through the installation of the software. {sdc@aw}[#] easyinstall
Driver: CD-Rom	5. Select Driver: CD-Rom.
Contents	6. Click the Contents button.
Install	7. Click the install button.

Enter license key	8. You will be prompted for the application license key, enter it and hit return. The rest of the installation will proceed automatically. Examine the message area for errors. Possible errors are: insufficient disk space (free up disk space in the \$SdC_IMAGE_POOL directory and try installing again), invalid license key (try installing again and entering the key again or request a new key after checking the system information required for key generation is correct). Note the application license may be also called NeuroNavSO instead of BrainWaveSO.
Eject CD-ROM	9. Click the Eject CD-ROM button.
Quit Ok	10. Click the Quit button and then Ok to the reminder

B. BrainWaveSO Configuration for Solaris (AW)

Advanced Users

New Users

Security -> Restart Software More Software-> BrainWaveSO	1. To test if the installation was successful, shutdown the AW browser and restart it (Browser Tab: Security -> Restart Software). A popup box will ask “ Do you really want to restart the Software? ”. Click yes . Launch BrainWaveSO (Browser Tab: More Software-> BrainWaveSO .) The BrainWaveSO GUI will pop up.
Main menu Manage System	2. Configure BrainWaveSO: Select Main Menu at the bottom of the BrainWaveSO GUI if Manage System is not an option. Select Manage System . For a new installation continue to the next step. If you have a floppy disk with a saved BrainWaveSO configuration (e.g. from a previous install) goto Section II-C (of Part B) to restore the setting from the floppy disk.
Modify Configuration Defaults Enter password Update RTIP path	3. Select Modify Configuration Defaults and Set Mode . <u>Enter a new password in the blank space.</u> (i.e. “hello”) Make note of the password you use. Under the Media Storage tab, check the values of the directories. The default values should be correct unless custom modifications have been made to RTC and the location of the RTIP database. Change the entry for the "Advantage Windows RTIP Directory" to reflect the local suite name (for example change 'GEM' to 'USF' in the path). Note only the first three letters of the suite name are used (e.g. “GEM” for suite id name “GEMS”). It is okay to leave the default value for the "BrainWaveSO Database Directory”.
Communication Port Enter Port # - 3000	4. Select the Communication Port tab. Enter 3000 as the port number (unless this port number is being used by another application, check with the local system administrator if you are in doubt).

Dicom Hostname IP of AW Port	5. Select the Dicom tab. Enter the information for the system where BrainWaveSO will archive its studies. Contact the local network system administrator for this information. By default the local AW system is selected as is port 4006. You should enter the hostname and IP of the AW system. Note the default IP address selected is 127.0.0.1 which always points to the local machine. You may want to replace this with the actual IP address of the AW workstation.
Set Defaults Main Menu	6. Close the Configuration Defaults dialog box by selecting Set Modes and Save Config Settings . Return to the Main Menu .
Quit BrainWaveSO Restart BrainWaveSO	7. In this menu, quit BrainWaveSO and then restart it by selecting the “more software” location and then BrainWaveSO .
Close/exit	9. Close/exit the UNIX command window. This is the same location where easyinstall was initiated.

C. BrainWaveSO Save / Restore System Information

The system information consists of the BrainWaveSO storage directories, communications port, and dicom settings as well as the list of Paradigms defined on the system and their color associations.

Advanced Users

New Users

More Software-> BrainWaveSO	1. Start BrainWaveSO if it is not already running. (Browser Tab: More Software-> BrainWaveSO .) The BrainWaveSO GUI will pop up.
Manage System Save / Restore ... Enter password	2. Select Manage System . Select Save / Restore BrainWaveSO System Information You will be prompted for the service password (see II-B step 3), enter it.
Save ... Ok	3. To save the system information to floppy disk select the Save Information to Floppy Disk button. You will be presented with a confirm box and prompted to insert a formatted* floppy disk. Do so and hit ok. Once disk activity stops eject the disk, label it, and store it in a safe location. The files saved are ~sdc/sensor/neuronav/config/NeuroNav.config and ~sdc/sensor/nn_db/ParadigmInfoSO.txt This saves the communications port, dicom settings, and list of

	<p>Paradigms and their color associations.</p> <p>*To format a floppy disk use the following command in a command window (unix prompt) : “fdformat –dfv”</p>
<p>Restore ... Ok Restart BrainWaveSO</p>	<p>4. To restore the system information from floppy disk select the Restore Information from Floppy Disk button. You will be presented with a confirm box and prompted to insert a floppy disk containing previously saved system information.</p> <p>The files restored are ~sdc/sensor/neuronav/config/NeuroNav.config and ~sdc/sensor/nn_db/ParadigmInfoSO.txt. Backup copies of the files currently on disk (if any) will be made with the .bak extension.</p> <p>To ensure the settings have taken place exit and restart BrainWaveSO.</p>

III. Postscript® Printer Setup for use with BrainWaveSO v. 1.x

This step is run on the AW Solaris Workstation. Currently only the Codonics color printer is supported. Text after the % should be typed in the command window. Text in ()'s are comments that should not be typed in.

Advanced Users

New Users

sdc Tools-> Command Window	1. Log in as sdc and open a command window. (Browser Tab: Tools-> Command Window)
% su -root	2. % su -root (you will need to type in the root password for the AW workstation)
% ~sdc/install/install.printers	3. If you have a printer provided by GE then type % ~sdc/install/install.printers For other printers skip to step 12
Return	4. If you have a Configuration Floppy you should insert it now. Whether you have one or not press [Return] to continue ...
y	5. Do you want to install new printer(s) [y,n,?,q] y
GENNavprntr	6. Define the local name of the printer [?,q] GENNavprntr (Note: You must use this printer name)
Enter selection [?,??,q]: 1	7. Installing Printer Printer model 1 c Codonics (1660M 1660MD) 2 l Lexmark (Optra 1650N 1855N SC1275N C710n) 3 s Seiko (1720D)
Enter selection [?,??,q]: 1	8. Printer Type: 1 c Color printer 2 g Grayscale printer
Enter IP address	9. Printer internet (IP) address [?,q] ex. 192.168.1.101
Enter hostname	10. Printer hostname [?,q] ex. hp4050n Checking if hp4050n is alive ... Changing spool directory ... Print services stopped. Changing spool directory ... Print services started. Removing printer (if necessary) ... Declaring printer ... Setting filming configuration file ...
n	11. Do you want to install new printer(s) [y,n,?,q] n

Other printers	12. If you have a different printer, follow these steps.
sdc Tools-> Command Window	13. Log in as sdc and open a command window. (Browser Tab: Tools-> Command Window)
% su -root	14. % su -root (you will need to type in the root password for the AW workstation)
Generic method	15. % lpset -a bsdaddr=<printer_name>,scaled,Solaris GENNavprntr
Example	16. lpset -a bsdaddr=PS_RAD1,scaled,Solaris GENNavprntr

This concludes the necessary and optional installation instructions.

IV. Troubleshooting

1. In general, if you are having problems with connections, be sure that you confer with your system administrator to ascertain the correct IP address, host names and the port number.
2. Regarding the BrainWaveSO installation on Solaris, if there is an “insufficient disk space” message in Section IV,A step 3, free up disk space in the \$SdC_IMAGE_POOL directory and try installing again.
3. Again with BrainWaveSO on Solaris, if there is an “invalid license key” message, try to install the software again with the same key. If this doesn’t work, request a new key after confirming that the system information required for key generation is correct. Note: The key may be referred to as NeuroNavSO

Contact GE Service Personnel First

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