

# GSoft2 – GETTING STARTED

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## GS4 DRIVE CONFIGURATION SOFTWARE

GSoft2 is the configuration software for the Automation Direct GS4 family of drives. It is designed to allow you to connect a personal computer to drives in the GS4 family, and perform a variety of functions:

- Create new drive configurations
- Upload/download drive configurations
- Edit drive configurations
- Archive/store multiple drive configurations on your PC
- Trend drive operation parameters
- Tune the drive PID loop
- View real time key operating parameters
- Start/Stop drive and switch directions, provided drive is set up for remote operation
- View drive faults

GSoft2 includes an integral help file with software instructions. GSoft2 can be downloaded for free or purchased on USB from AutomationDirect.com (search for GSoft2).

### SYSTEM REQUIREMENTS



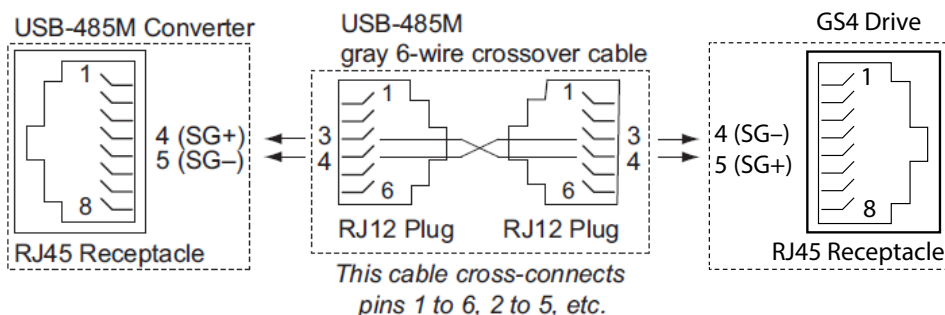
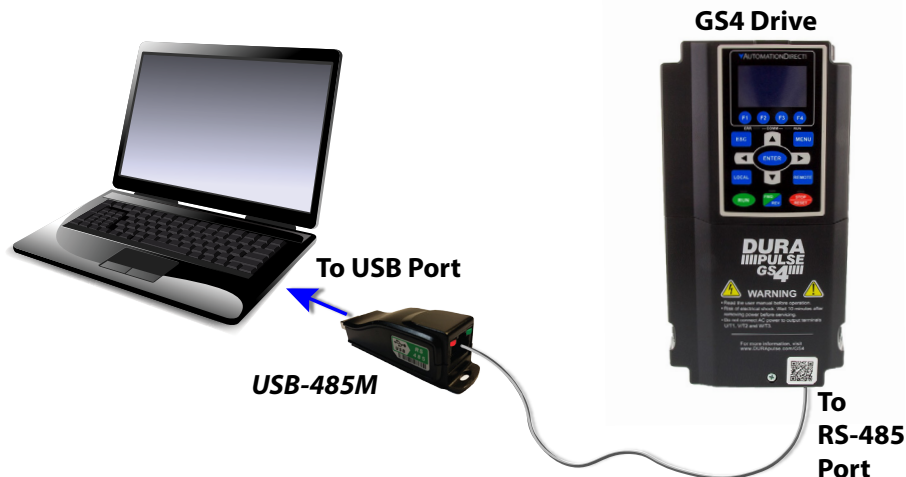
GSoft2 will run on PCs that meet the following requirements:

- Windows OS: 7: 32 & 64 bit, 8: 32 & 64 bit, 8.1: 32 & 64 bit, 10: 64 bit
- Internet Explorer 9.0 or higher (for HTML help support)
- 32 Mb of available memory
- 10 Mb hard drive space
- Available USB port (for USB-485M USB-to-RS485 converter)

## INSTALLATION GUIDE

### SYSTEM REQUIREMENT CONFIGURATION

Verify the GS4 drive RS-485 connection to PC/Laptop computer through one of the GS4 RS485 ports using an RS-485 port connecting cable (RJ45). Alternatively you can link to a PC USB port through a USB-485M (P/N USB-485M) adapter communication converter normally used to link RS485 to a USB supported device (See Chapter 5 for discussion on GS4 drive communications).



Ethernet connectivity for EtherNet/IP communication is possible with optional communication card # GS4-CM-ENETIP. Ethernet connectivity for Modbus TCP communication is possible with optional communication card # GS4-CM-MODTCP. ZL-RJ12-CBL-2 can also be used between the USB-485M and the GS4. Refer to "Appendix B: Optional I/O and Communication Cards" for details.



For the 2-wire cable (RJ12 to flying leads) included with the USB-485M: Red wire plugs into terminal SG+ on the drive. Green wire plugs into SG- on the drive. Also, the included 6-conductor RJ12 cable connects the USB-485M directly to the RS485 RJ45 ports on the GS4. (The drives' RJ45 ports can accept 6-conductor RJ12 connectors).

**SOFTWARE INSTALLATION**

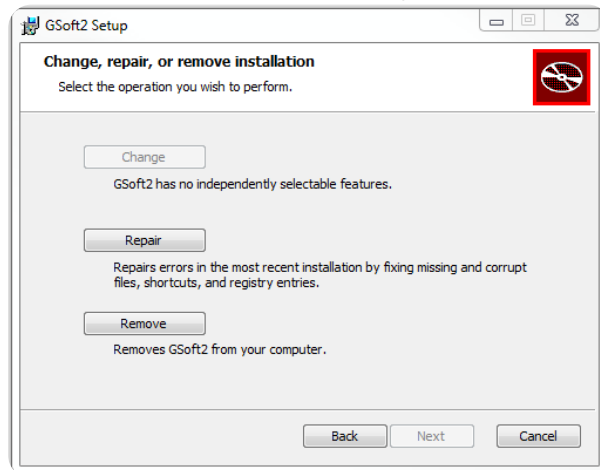
Step 1: Download the installation file from AutomationDirect.com or insert the GSoft2 USB drive into a USB port on your PC. If Autoplay is not enabled, doubleclick Setup.msi to start the installation process.



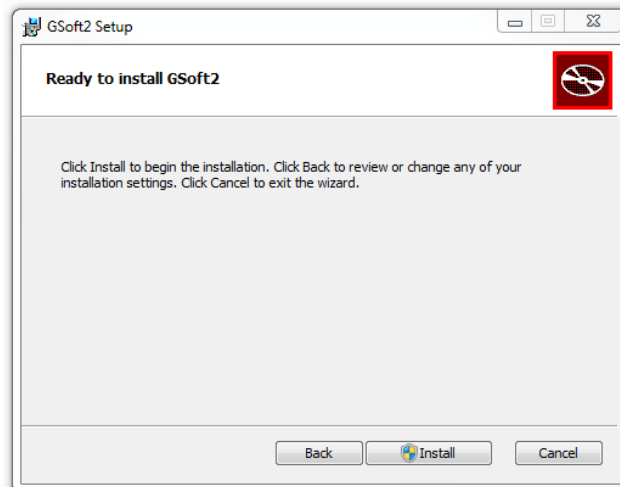
Step 2: Proceed with installation. At the welcome dialogue box select NEXT to continue installation process.



Step 3: If GSoft2 was previously installed then the Change, repair, or remove installation window allows you to effect changes to your installation, repair corrupt files or fix other issues with the current installation. Should you choose the GSoft2 file can be removed as well.



Step 4: If this is a new installation, click "Install" to continue the installation process. Follow the prompts to complete software installation.



## OPENING GSOFT2 SOFTWARE PROGRAM



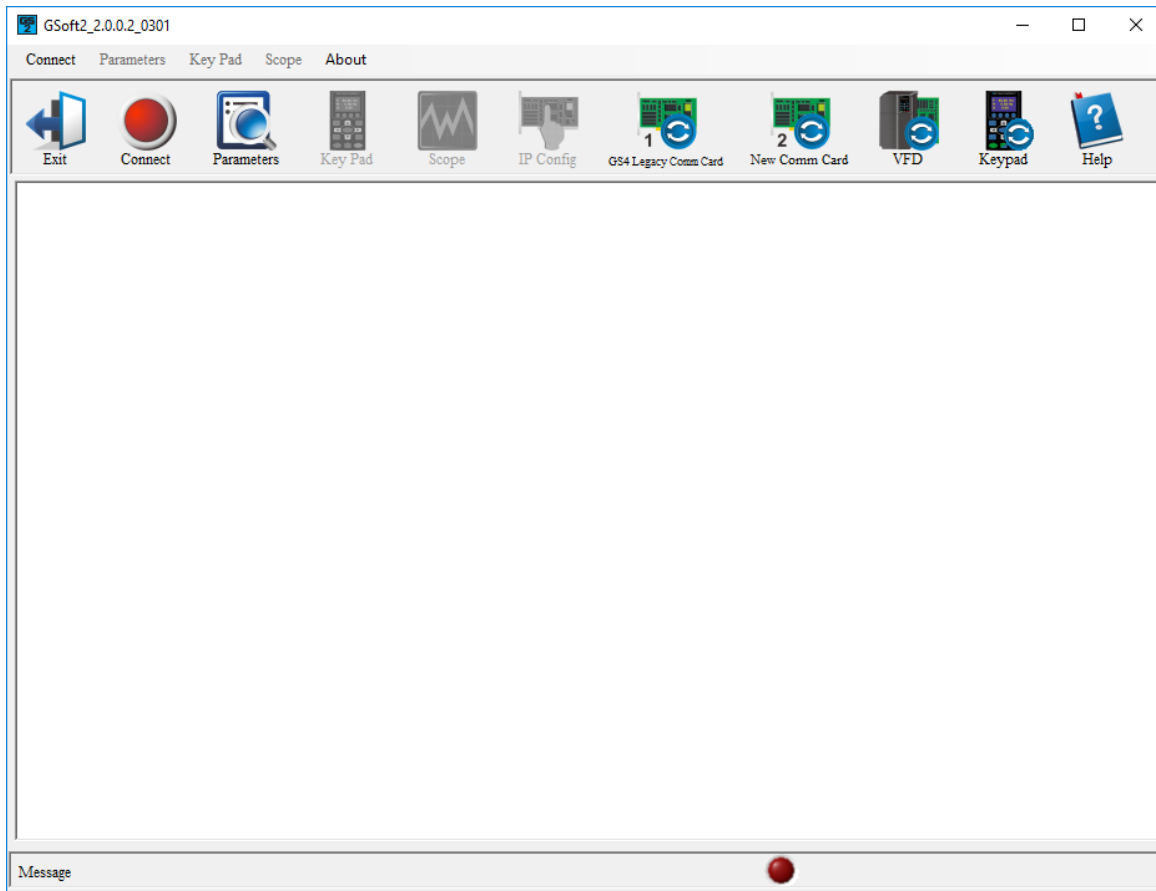
*GSoft2 includes an integral help file with software instructions.*

GSoft2 offers the user a PC based software configuration tool for creating and editing a GS4 Drive configuration. The configuration tool provides access to GS4 Drive parameters in a table format. Each parameter can be adjusted for your specific drive application. Once the selected parameters have been changed, the file can be downloaded to the GS4 Drive as well as saved to your project folder for future use on other drives. Once created and saved, subsequent editing is done using the GSoft2 software.

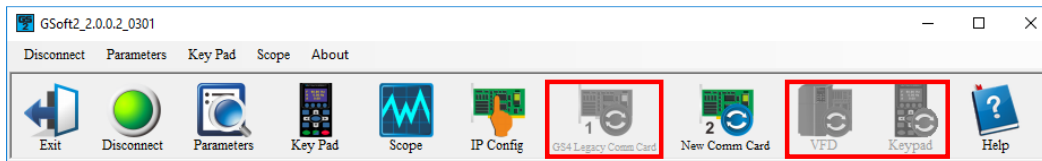
Double click the GSoft2 shortcut to open the program; OR click in the search box in the lower left corner of Desktop and type GSoft2.



GSoft2 Graphic User Interface (GUI) will open. You will notice that only one menu command is in bold (Connect), while the others are grayed out. Some icons on the toolbar are initially grayed out as well. At this point, the GUI includes seven Icons that are available as shown in the screencap. "Connect" is bold as shown upper left.

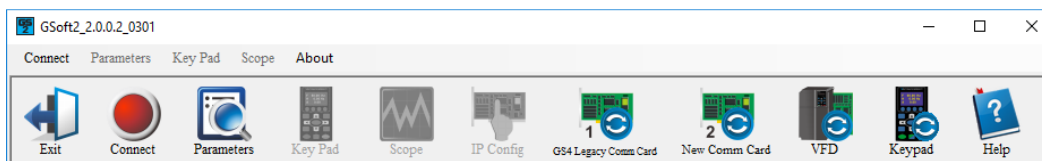


Icons within the red rectangle below will be grayed out after successfully connecting to the drive. Menu Bar commands will now appear in bold text (available).

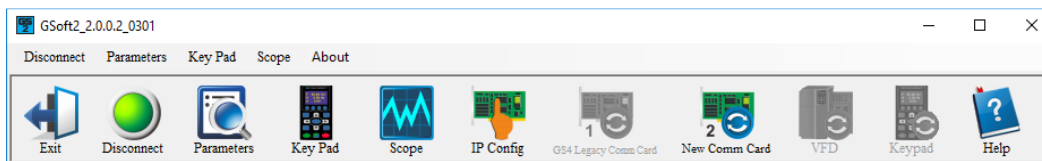


**SOFTWARE FUNCTIONS**

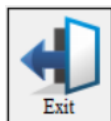
**ICON APPEARANCE BEFORE CONNECTING TO DRIVE**



**ICON APPEARANCE AFTER CONNECTING TO DRIVE**



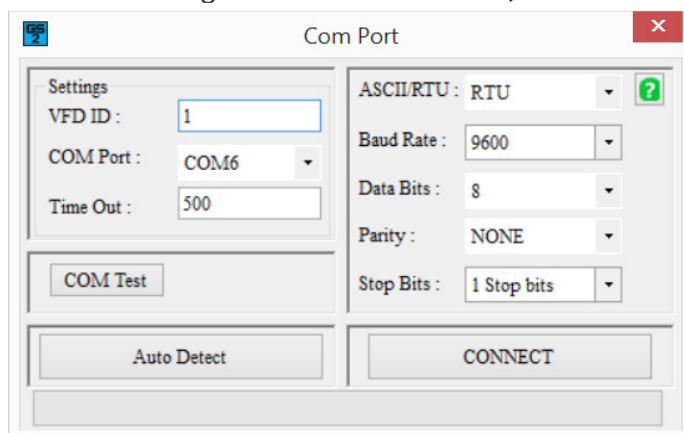
**ICON FUNCTIONS**



**EXIT:** Shuts down the GSoft2 software. (A pop-up "Are you sure" window will appear).



**CONNECT:** Opens Com Port dialog box (Same as "Connect" on the menu bar). This allows you to configure the settings to establish serial RS485 communication to your drive. If several COM ports are installed on your PC, you will need to go to Device Manager to determine which COM port is the correct one. The ASCII/RTU settings in this window must match the settings in the drive: See P9.00, P9.01 and P9.02 in the drive.





**PARAMETERS:** Opens GSoft2 drive parameters table. The Parameters screen allows the user to upload and download entire configurations to and from the drive. Individual parameters can be changed "live" as well. There is also the ability to Open and Save files on the PC's hard drive, and the ability to Compare parameter information to a drive's default values. See the online help file for more information.

Pr. NO	Modbus	Description	Unit	Data	Default	Min	Max	Attribute
00.00	0000H	Mtr1 Max VoltOut	V	233.0	230.0	0.0	255.0	Writable
00.01	0001H	Mtr1 Amps Rated	Amps	2.70	4.50	0.50	6.00	Writable
00.02	0002H	Mtr1 Base Hz	Hz	60.00	60.00	0.00	600.00	Writable
00.03	0003H	Mtr1 RPM Rated	rpm	1710	1710	0	1800	Writable
00.04	0004H	Max Hz Output	Hz	60.00	60.00	0.00	600.00	Writable
00.05	0005H	Auto Tune Sel		0	0	0	2	Writable
00.06	0006H	Mtr1 Resistance	ohm	0.000	0.000	0.000	65.535	Writable
00.07	0007H	Mtr1 NL Amps	Amps	0.90	1.80	0.00	2.70	Writable
00.08	0008H	Mtr1 HP Rated	HP	1.00	1.00	0.00	655.35	Writable



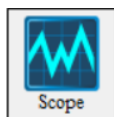
**KEYPAD:** Opens a graphical representation of the drive's keypad. Several buttons will be grayed-out (ESC, MENU, and several other keys are non-functional).

**Operational Instructions:**

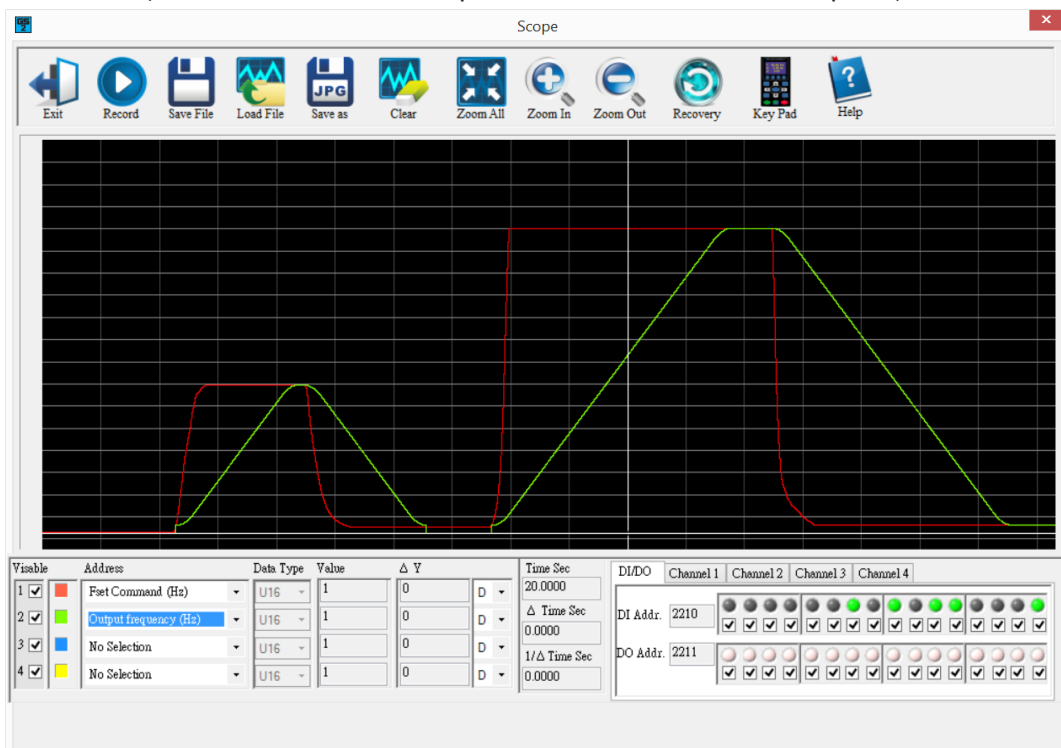
To enable the Jog (F1), RUN, FWD/REV, and STOP/RESET buttons and to allow changes to the drive's speed, please see the GSoft2 online help file (must set P3.00/P3.01 and P4.00/P4.01 for the drive to accept commands from RS485).



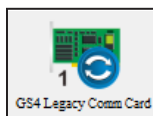




**SCOPE:** Opens a functional graphic interface for testing and viewing selected drive parameter data values (See the GSoft2 online helpfile for further detailed description).



**IP Config:** Allows manual configuration of an optional Ethernet card's IP address. Serial (RS485) connection to the drive is required.



**GS4 Legacy Comm Card:** Use this feature when upgrading the GS4 Legacy ethernet communication cards (no J2 jumper is on the card). Icon is “grayed out” and not accessible after drive connection has been initiated. Press "Disconnect" to resume functionality.



**New Comm Card:** Use when upgrading firmware to any newer GS4 Network card with J2 jumper or any GS20(X) Ethernet comm card.

Please read the important "Firmware Upgrade Notes" on [page 7-10](#).

See the GSoft2 Helpfile for details on how to upgrade communication card firmware.

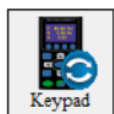


**VFD:** Only available upon initial opening. Use when upgrading GS drive firmware. Only accessible prior to connecting to drive. Icon is “grayed out” and not accessible after drive connection has been initiated.

Please read the important "Firmware Upgrade Notes" on [page 7-10](#).

See the GSoft2 Helpfile for details on how to upgrade firmware.

**NOTE:** 500mA is required from the USB port of the sending PC. If unsure of the available current supplied by the PC, please use a powered USB hub.



**KEYPAD:** Only available upon initial opening. Use when upgrading KEYPAD firmware. Only accessible prior to initiating CONNECT. Icon is “grayed out” and not accessible after drive connection has been initiated.

Please read the important "Firmware Upgrade Notes" on [page 7-10](#).

See the GSoft2 Helpfile for details on how to upgrade keypad firmware.

## FIRMWARE UPGRADE NOTES



*When upgrading firmware, the drive should be disconnected from all power sources (incoming AC power and control-level DC power).*



*All unnecessary USB peripherals should be disconnected from the host PC; Especially any USB to serial converters (USB-485M, USB-RS232, etc.) (drivers may conflict with the USB FW upgrade driver).*



*The host PC must be connected to the upgrade port of the GS4 via a standard USB A-to-B cable (USB-CBL-AB6 or similar).*




*Once the PC is connected to the GS4, the drive will be recognized as a USB-serial converter COM port. Open Device Manager to determine which port number has been assigned.*



*Follow the software's instructions to upgrade the GS4 firmware. More detailed firmware upgrade instructions are available in the GSoft2 online help file.*

## GSOFT2 HELP FILE NOTE

*To get the most use out of GSoft2 for the GS4 AC Drive and to learn what powerful features and tools exist within GSoft2, we highly recommend that you use the internally available Help File. There are a couple of ways to access this Help File within the GSoft2 software:*

-  *The easiest way to access the Help File information is to click the Help (Help File) icon in the far right of the Toolbox above the viewing pain.*
- Alternately, you can access specific topics within the Help File by clicking "?" marks within the GSoft2 software. Those links bring up specific Help File information applicable to the particular GSoft2 topic.*



*Various data that exists within the User Manual also exists within the Help File, e.g., explanations of "how to" accomplish various tasks. Other information is found only within the Help File, such as more detailed information for using GSoft2 and for upgrading the GS4 drive firmware. The help File also contains detailed information concerning the GS4 AC drive parameters and information for understanding and using the PID process.*

*Make use of the Help File, and the Help File will live up to its name.*