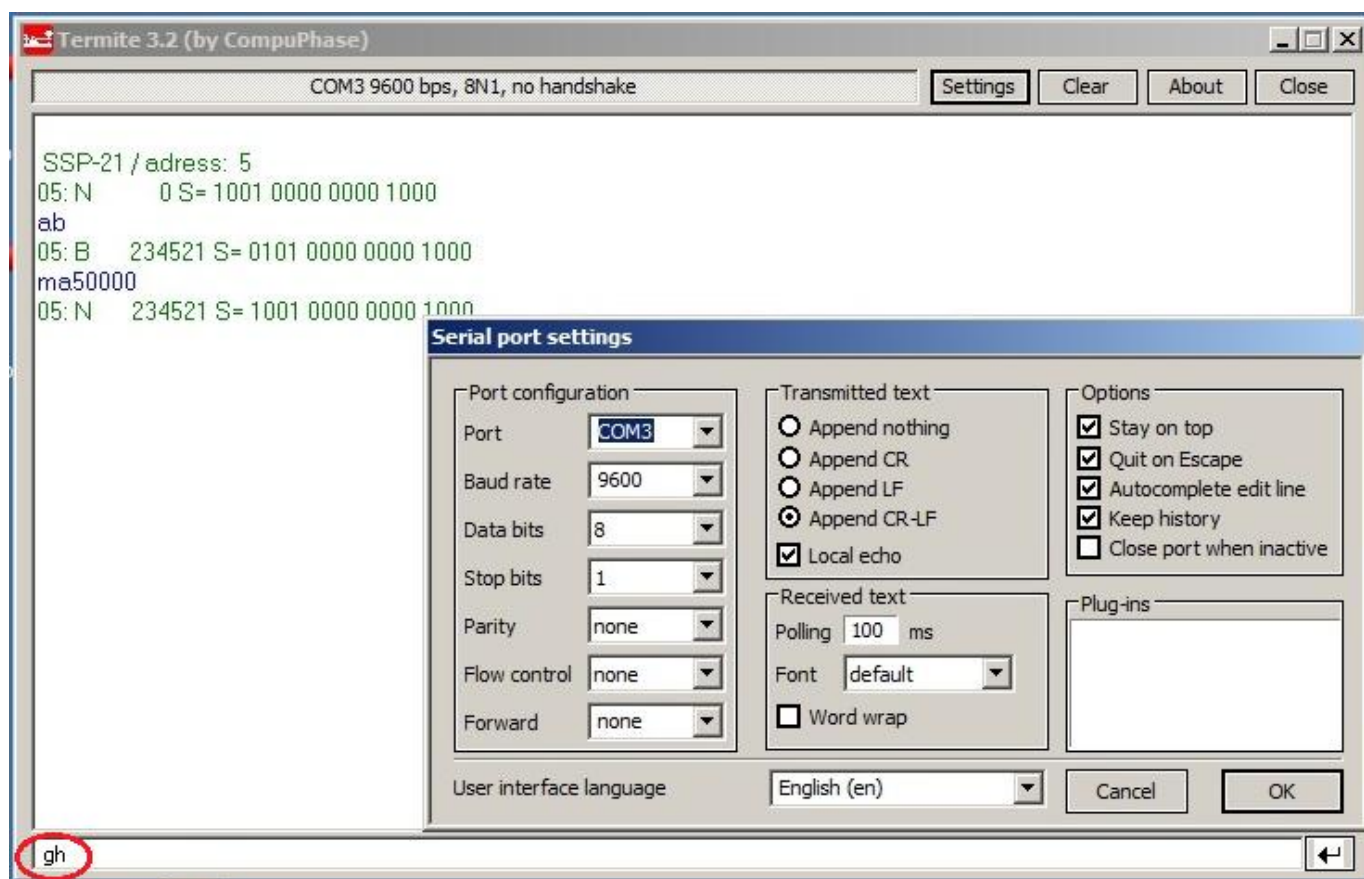


## Quick Start for DSP-,xx SSP-xx and SSQ-xx controllers

The controller uses serial communication and for this you will need a Terminal program.

A Free version available here: [www.compuphase.com/software\\_termite.htm](http://www.compuphase.com/software_termite.htm)

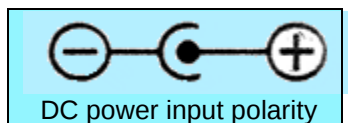
When running the “Termite” program, the correct communication setup should look like in the screen captures below.



To send commands to the controller you type them in the lower field and press <enter> key. In the example above you see “gh”.

Now connect the motorized mechanics and the power to the controller and front panel **LED** light will turn **ON**. If the **LED** blinks it is an indication that the mechanics is at the end of travel. For closed loop systems it can also mean there is a problem with the feedback loop.

The more common Power Supply is 12V DC and 1Amp with the polarity shown below.



The **Termite Terminal** screen indicates at power-up that:

- the communication with the controller is working correctly
- the controller address is 5
- no startup program have been saved in the controller memory.

If this screen doesn't appear at power-up check the connection with the PC and the power than try again.

Now you can use the **Command List** to send commands to the controller. Try the following:

- |                        |                                                                                   |
|------------------------|-----------------------------------------------------------------------------------|
| - <b>MR800</b> <enter> | The motor will rotate to move the mechanics in the (+) direction                  |
| - <enter>              | The last action will be repeated. ( <b>M</b> ove <b>R</b> elative 800 increments) |
| - <b>DH</b> <enter>    | Sets the position counter to "0" also called "Home".                              |
| - <b>MA-2000</b>       | The motor will <b>M</b> ove <b>A</b> bsolute to the position -2000.               |
| - <enter>              | No action because the motor is already at -2000 position.                         |

**Commands List = Print this page =**  
**The grayed cells are commands generally used at factory setup**

| NR | Mnemonic        | Function description                                        | User NOTES                                                  |
|----|-----------------|-------------------------------------------------------------|-------------------------------------------------------------|
| 1  | <b>HE</b>       | <b>HE</b> lp                                                | Display a list of commands                                  |
| 2  | <b>RF</b>       | Set <b>R</b> eporting <b>O</b> FF                           | Must be used (saved) for LabView and network                |
| 3  | <b>RN</b>       | Set <b>R</b> eporting <b>O</b> N                            | Recommend to use with Terminal programs                     |
| 4  | <b>TP</b>       | Tell Current <b>P</b> osition                               | Display the current position                                |
| 5  | <b>DH</b>       | <b>D</b> efine <b>H</b> ome                                 | Sets the current position to "0"                            |
| 6  | <b>GH</b>       | <b>G</b> o <b>H</b> ome                                     | Moves the motor until the "0" position is reached           |
| 7  | <b>MN</b>       | <b>M</b> otor <b>O</b> N                                    | Motor holding current is on                                 |
| 8  | <b>MF</b>       | <b>M</b> otor <b>O</b> ff                                   | Motor holding current is off                                |
| 9  | <b>MA</b>       | <b>M</b> ove <b>A</b> bsolute                               | MA2222                                                      |
| 1  | <b>MR</b>       | <b>M</b> ove <b>R</b> elative                               | MR500                                                       |
| 11 | <b>AB</b>       | <b>A</b> Bort                                               | Abort any action                                            |
| 12 | <b>WA</b>       | <b>W</b> ait [ms]                                           | <b>WA500</b> or <b>wa10000</b> Stop execution for Xmsec.    |
| 13 | <b>GV</b>       | <b>G</b> et Maximum <b>V</b> elocity                        | Display maximum velocity                                    |
| 14 | <b>GA</b>       | <b>G</b> et Maximum <b>A</b> cceleration                    | Display maximum acceleration                                |
| 15 | <b>GF</b>       | <b>G</b> et <b>F</b> ollowing error                         | Display maximum allowed lagging.                            |
| 16 | <b>SF</b>       | <b>S</b> et <b>F</b> ollowing error                         | <b>SF10000</b> or more to allow for larger lagging          |
| 17 | <b>SA</b>       | <b>S</b> et maximum <b>A</b> cceleration                    | SA1000                                                      |
| 18 | <b>SV</b>       | <b>S</b> et maximum <b>V</b> elocity                        | SV90000                                                     |
| 19 | <b>GQ</b>       | <b>G</b> et <b>T</b> orque                                  | Reads and displays the set Torque value                     |
| 20 | <b>SQ</b>       | <b>S</b> et <b>T</b> orque                                  | After using <b>GQ</b> use to raise the current limit (PWM%) |
| 21 | <b>GP</b>       | <b>G</b> et <b>P</b> -term                                  |                                                             |
| 22 | <b>GI</b>       | <b>G</b> et <b>I</b> -term                                  |                                                             |
| 23 | <b>GD</b>       | <b>G</b> et <b>D</b> -term                                  |                                                             |
| 29 | <b>DP</b>       | <b>D</b> efine <b>P</b> -term                               | <b>DP10</b> for low gear, low friction low load             |
| 30 | <b>DI</b>       | <b>D</b> efine <b>I</b> -term                               | <b>DI10</b> for low gear, low friction low load             |
| 31 | <b>DD</b>       | <b>D</b> efine <b>D</b> -term                               | <b>DD2</b> for low gear, low friction low load              |
|    | <b>Commands</b> | <b>used for configuration</b>                               | <b>Use only if instructed</b>                               |
| 32 | <b>AL1234</b>   | <b>A</b> dministrative <b>L</b> evel                        | <b>Use for system integration. Exits on Power Off.</b>      |
| 33 | <b>PW</b>       | <b>P</b> WM test                                            | Only for DC motors after AL1234 command was given           |
| 34 | <b>RD</b>       | <b>R</b> everse motor <b>D</b> irection                     | Works only after AL1234 command was given                   |
| 35 | <b>FD</b>       | <b>L</b> oad <b>F</b> actory <b>D</b> efault values         | Use only after instructed by manufacturer                   |
| 36 | <b>UD</b>       | <b>U</b> ppdate <b>U</b> ser <b>D</b> efaults in <b>E</b> E | Use to save application specific settings                   |
| 37 | <b>LN</b>       | <b>L</b> imit <b>S</b> witch <b>O</b> peration <b>O</b> N   |                                                             |
| 38 | <b>LF</b>       | <b>L</b> imit <b>S</b> witch <b>O</b> peration <b>O</b> ff  |                                                             |
| 39 | <b>LH</b>       | <b>L</b> imit <b>S</b> witches <b>A</b> ctive <b>H</b> igh  | Use the <b>UD</b> command after system integration          |
| 40 | <b>LL</b>       | <b>L</b> imit <b>S</b> witches <b>A</b> ctive <b>L</b> ow   | Use the <b>UD</b> command after system integration          |
| 41 | <b>LS</b>       | <b>L</b> imit <b>S</b> witches <b>S</b> wap                 | Use the <b>UD</b> command after system integration          |
|    | <b>User</b>     | <b>defined Macro programs</b>                               |                                                             |
| 37 | <b>CM</b>       | <b>C</b> ommand <b>M</b> acro                               | CM1 (Executes a saved Macro program)                        |
| 38 | <b>DM</b>       | <b>D</b> efine <b>M</b> acro                                | DM1 (Defines and saves a Macro program)                     |
| 39 | <b>EM</b>       | <b>E</b> rase <b>M</b> acro                                 | EM1                                                         |
| 40 | <b>TM</b>       | <b>T</b> ell <b>M</b> acro                                  | TM1                                                         |