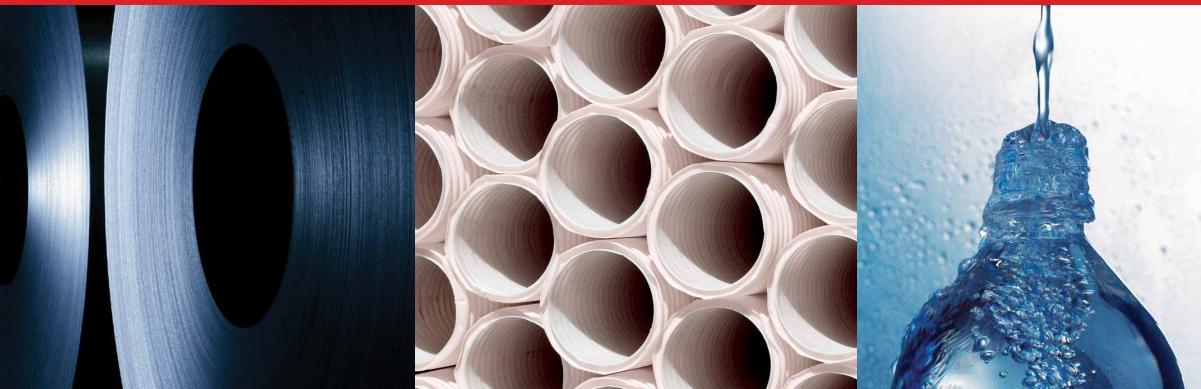


L2 Plus Series Software for Advanced Force Measurement

Security and System Settings



Starrett®

The Better Solution



Starrett®
FMS1000





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7.0 SYSTEM SECURITY & SETTINGS

System security, including the setting up of users and their system privileges are performed using the Security Settings function.

To access the Security Settings, go to the Main System menu, select Settings and then select Security.

Your L2 Plus system has three levels of user security. These are:

- Super Administrator
- Supervisor
- User

User Type	Maximum Allowed per System
Super Administrator	1 allowed per system
Supervisor	1 allowed per system
User	5 allowed per system

System User Restrictions

Access the SECURITY Settings from the Main Settings Menu.

Make sure that there are no test setups opened or selected.

Select the L2+ symbol to display the main system settings.

Select the Settings symbol.

Open a Test for Graph and Data Views.

Make sure that there are no test setups opened or selected prior to selecting the Settings symbol.

Main Settings View

Super Administrator

The Super Administrator is the highest level of authorization. This level has total access to all system functions. An L2 Plus system must have a Super Administrator.



NOTE

You may have only one Super Administrator account.

Supervisor

The Supervisor is a level below the Super Administrator. Only the Super Administrator can assign the “access rights” to the Supervisor. You may have multiple Supervisors for an L2 Plus system.



NOTE

You may have only one Supervisor account.

User

The User level is below the Supervisor level. A User is generally used for the operator with restrictive access to only the functions the operator needs to perform in their normal duties.



NOTE

You may have up to five (5) User accounts.

7.1 Security Settings

All assigned users to a system have these configurable attributes:

- Display Name
- Password
- Password expiration
- Account enabled
- Automatic user login

7.1.1 User Accounts

There are three levels of users organized in a hierarchical order with the Super Administrator having the ability to have total control over all other users and their privileges.

Your L2 Plus system must have a Super Administrator if user accounts are going to be used, e.g. the system will have multiple users with user names and passwords.



WARNING

Starrett recommends setting up your system with user accounts.

If you are not going to have user accounts, then all users will have Super Administrator privileges, including the ability to assign access rights to all users and to prevent users from having any rights.

The screenshot shows two instances of the 'Security Settings' window. The top window shows the 'Super Admin' user with a display name of 'Super Admin'. The bottom window shows a new user 'JSmith2013' with a display name of 'JSmith2013'. Red arrows indicate the flow of information: one arrow points from the 'Super Admin' display name field to the 'JSmith2013' display name field, and another points from the 'Super Admin' user selection dropdown to the 'JSmith2013' user selection dropdown. The bottom window also shows the password field filled with 'JS1234567890' and the 'Automatically login as this user' checkbox set to 'No'.

*User Type Selection
Use this drop down to setup individual users and their system privileges.*

Once a Super Administrator is given a Display Name, the label “Super Admin” is replaced by the new display name.

Security Settings View
Assign Display Name to Super Admin

7.1.2 Display Names

Each user of the L2 Plus system may have a unique user name, called the Display Name.

The Display Name is case-sensitive and may be up to 16 characters in length. The Display Name may use alphabetic or numeric characters. Symbols may not be used.



NOTE

The Display Name may be up to 16 characters in length. A space is a character.



NOTE

The Display Name may be composed of case-sensitive letters and numbers.

7.1.3 User Password

A password may be assigned to a User Name. But a password is optional, e.g. you may have a User Name with no password.

A password may be up to 16 characters in length. The password may use any combination of letters and numbers. Spaces should not be used. Passwords are case-sensitive.



NOTE

A password is optional for a User Name.



NOTE

A password may be up to 16 characters in length.



NOTE

Passwords are case-sensitive.

Security Settings

Display name:

Password:

Max days password is usable:

Account enabled: Yes

Automatically login as this user: No

Access rights for RichB, users 1 to 5

Capability	Access
Language Settings	Yes
Display Formats	Yes
File Locations	Yes
Tests	Yes
IO Lines	Yes
Printouts	Yes
Security Settings	Yes
Sounds Settings	Yes

Supervisor Setup

In order to use the system you must login. Select your language, select your account, enter your password, and then press Done.

RichB

User 1

789

456

123

.0-

✕←

Done

*Login View
Supervisor login*

- IMPORTANT -

Password backup should be written down and stored in a secure location. Should you lose your password, contact Starrett for assistance in resetting a password.

7.1.4 Password Expiration

You may specify a password expiration. Enter the number of days that the current password is allowed to be active. At the end of this period, the password will become disabled. The user will be required to change their password, or to re-activate the password through their Super Administrator.



NOTE

If you do not wish to have passwords expire, leave the “Max days password is usable” blank.



NOTE

A password may be re-used. It is not necessary to enter a new password when the expiration has occurred.

7.1.5 Account Enabled

An account may be enabled or disabled using the Account Enable function. If the Account Enable = Yes, the user may login to the system. If the Account Enable = No, the user will not appear in the login menu and may not login to the system.



NOTE

The Super Administrator is always enabled.

Security Settings

Display name:

Password:

Max days password is usable:

Account enabled: Yes

Automatically login as this user: No

Once a password is setup, you have the option of entering the number of days the password will remain active. Enter the number of days.

Once this duration is exceeded, the password is no longer active/valid and must be reset by the Super Administrator or Supervisor.

Leave the entry blank if you don't wish to have passwords expire.

Access rights for Supervisor, users 1 to 5

Capability	Access
Language Settings	No
Display Formats	No
File Locations	No
Tests	Yes
IO Lines	No
Printouts	Yes
Security Settings	No
Sounds Settings	No

Supervisor Setup

Security Settings

Display name:

Password:

Max days password is usable:

Account enabled: No

Automatically login as this user: No

Since the account RBrown2013 is not enabled, it does not appear on the Login list. The user cannot login to the system with a disabled account.

In order to use the system you must login. Select your language, select your account, enter your password, and then press Done.

User 1

7 8 9

4 5 6

1 2 3

. 0 -

⌫ ⬅

Done

System Login

Account is disabled, does not appear active on user list

7.1.6 Automatic User Login

The Automatic User Login option, when set to Yes, automatically logs on a user without having to enter a password. It effectively by-passes the password login function.

Normally, automatic user login is reserved for the Super Administrator.

7.2 Access Rights

All assigned users have these configurable access rights:

- Language Settings
- Display Formats
- File Locations
- Tests
- IO Lines
- Printouts
- Security Settings
- Desktop Setting
- Load Cell Correction
- Loads
- Motion
- Test Authoring

Access rights are either YES or NO and listed in the Access column. To change the access rights, select the Yes or No status.

Scroll down to view and change the access rights for the current displayed user.

Security Settings

Display name

Password

Max days password is usable

Account enabled Yes No

Automatically login as this user Yes No

Access rights for RBrown2013, users 1 to 5

Capability	Access
Language Settings	No
Display Formats	No
File Locations	No
Tests	Yes
IO Lines	No
Printouts	Yes
Security Settings	No
Sounds Settings	No

*User Privileges
Assign individual Access Rights to the active user*

In this example, the user name RBrown2013 cannot access or edit the following system Settings functions:

- *Language Setting*
- *Display Formats*
- *File Locations*
- *IO Lines*
- *Security Settings*
- *Sound Settings*

7.2.1 Language Setting

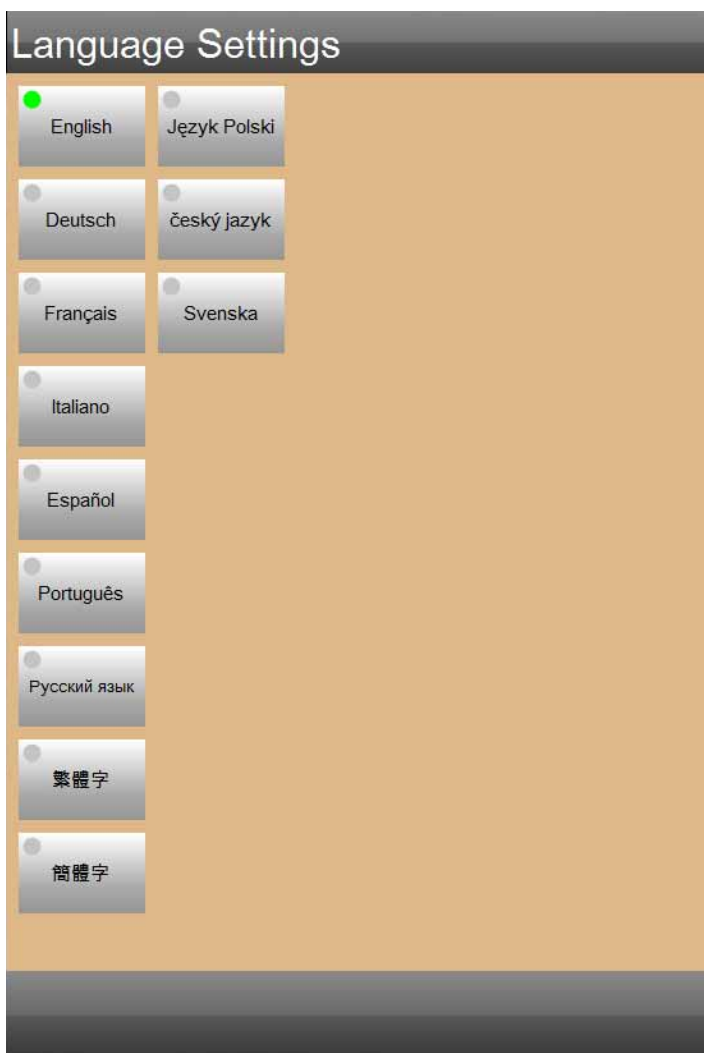
When this privilege = YES, the user may change the system display language using the Language Setting function.

When this privilege = NO, the user may not change the display language. The user cannot see the Language Setting using the Main Setting menu.

To select the display language, press or select the appropriate language target. The current language is denoted by the green dot.

Language files are saved in the Metlogix/Text sub-directory as an xml file.

Your L2 Plus system includes a language translator utility. Use this utility to translate all words and terms used in your L2 Plus system from English to your desired language. To access the language translator utility, press Ctrl+ F4.



*User Privileges
Assign individual Access Rights to the active user*

7.2.2 Display Formats

The Display Formats setting is used to specify the format type, units of measure and resolution.

You may specify either SI or Imperial type. The available units of measure are then available to choose from using the List of Value menu.

Specify the display resolution in the text entry field.

You may also utilize engineering notation and specify the minimum and maximum notation values, e.g. when notation is used or not.

In Display Formats setting, first select the units TYPE from the drop down menu beneath the L2+ symbol on the upper right side of the view.



Display Formats

Current height mode flag	<input type="text" value="D"/>
Current distance flag	<input type="text" value="mm"/>
Current load flag	<input type="text" value="N"/>
Current work flag	<input type="text" value="Joules"/>
Current rate time flag	<input type="text" value="Minutes"/>
Display resolution for distance	<input type="text" value="0.001"/>
Display resolution for load	<input type="text" value="0.01"/>
Display resolution for work	<input type="text" value="0.01"/>
Display resolution for time	<input type="text" value="0.001"/>
Display resolution for scalars	<input type="text" value="0.001"/>
Display resolution for percent	<input type="text" value="0.1"/>
Use comma for radix	<input type="text" value="No"/>
Date format	<input type="text" value="MM/DD/YY"/>
Notation	<input type="text" value="None"/>
Minimum notation threshold	<input type="text" value="0.001"/>
Maximum notation threshold	<input type="text" value="1000.000"/>

Use the drop down menu to specify the unit label to be used to designate the associated measurement type. Available units are associated with the units Type specified first, e.g. SI or Imperial.

Set the desired display resolution by adjusting the decimal location.

Specify the radix format. If NO, radix is a decimal. If YES, radix is a comma.

Dates may be displayed as MMDDYY or DDMMYY.

You have the option to display numerical results using Engineering Notation.

Engineering Notation thresholds let you specify when notation is used.

The Minimum threshold is the smallest decimal number that defines when to use Engineering Notation.

The Maximum threshold is the largest decimal number that defines when to use Engineering Notation.

*Display Format Settings
Specify type, units of measure and resolution*

7.2.3 File Locations

The File Locations setting is used to specify where exported data is saved to. Using the Pre Test settings, you have the ability to export data and results. The File Location setting is used to map where the data files are sent and saved.

Data and result files can be exported automatically at the completion of a test run using the Pre Test output options. Or, you can export data and results on-demand using the Share function.

File Locations	
Category	Location
Archives	Archives
Backups	Backups
Diagnostics	Diagnostics
Exports	Exports
Runs	Runs
Templates	Templates
Tests	Tests

*Shows that exports are mapped to the default EXPORTS sub-directory in the Metlogix directory.
Exports may optionally be mapped to any location on your network that is communicating with the L2 Plus workstation.*

*Pre Test setup for My Load Test
Exporting Raw Data and Results at completion of a test run*

My Load Test

Pre Test 1

Pull L_{lim} = 50.00 N S = 4.000 mm/min 2

Data Lmax, D@lmax, T@lmax 3

Return Home No

Export Raw Overwrite

Export Results Append

Print Results No

Runs Limit 100

Export files are sent to the default sub-directory called EXPORTS in the Metlogix directory.

Libraries > Documents > MetLogix > Exports

Organize Share with Burn New folder

Documents library

Exports

Name

- My Tensile Test_Results
- My Tensile Test_RawData
- My Load Test_Results
- My Load Test_RawData

7.2.4 Tests

The Tests setting is used to specify how certain Test functions perform. These settings include the ability of the user to edit a locked test; the use of prefixes in the test name; test numbering, and how tests appear on the main Home Menu.

Tests Settings

Test setups listed on the main Home menu can be listed based on their name (alphabetically), or based on "last used".

Here, test names are listed by Name.

Test setups may be locked by the creator. If the user has Test Authoring rights, and this setting = YES, the user can edit, copy or delete a test setup. If the setting = NO the user cannot edit, copy or delete a test setup.

When a new test is created, it is automatically named with this prefix. A prefix might be used for a lab, department, user, etc.

When a new test is created, it is given a number. The number identifies the test setup, which can be renamed.

The default is 0.01% of the connected load cell sensor. In most applications this value should NOT be changed. However, in certain extreme conditions, there may be too much noise on the load signal that you need to dampen the signal in order to obtain a more precise load point on your graph. To do this, you can experiment by increasing this noise setting from 0.01% to 0.02%. This effectively increases the measurement band around a point, making it more precise in identifying a specific load scope point.

7.2.5 I/O Lines

The I/O Lines setting is used only when your L2 Plus system has the optional L2 Plus Automation Builder application. This optional application allows use of the test frames digital I/O panel so the system can utilize I/O to control tests, e.g. contact closure test.

There are eight (8) configurable channels on the L2 Plus test frame. These channels may be setup to operate as inputs or outputs. And they may be setup to operate as either a High or Low input/output. Consult the L2 Plus Automation Builder User Guide for more information.

The screenshot displays the 'IO Lines Settings' window. It features a list of eight IO lines, each with three configuration fields: 'IO line #X name', 'IO line #X type', and 'Output line #X wakeup level'. The 'name' field is a text input box containing 'Line 3' through 'Line 8'. The 'type' field is a dropdown menu with 'Unused' selected. The 'wakeup level' field is a radio button selector with 'Low' selected. Red arrows point from explanatory text on the right to the 'Line 3' name field, the 'Unused' dropdown, and the 'Low' radio button.

IO line #	IO line # name	IO line # type	Output line # wakeup level
3	Line 3	Unused	Low
4	Line 4	Unused	Low
5	Line 5	Unused	Low
6	Line 6	Unused	Low
7	Line 7	Unused	Low
8	Line 8	Unused	Low

Line Number corresponds to the channel number on the terminal panel. You may rename the channel, e.g. switch On.

Channel default is "Unused". You may select from the drop down list either INPUT or OUTPUT.

You may specify whether the channel is a High (5V, 24V) or a low (0V) signal.

IO Lines Settings

Available with optional Automation Builder application installed

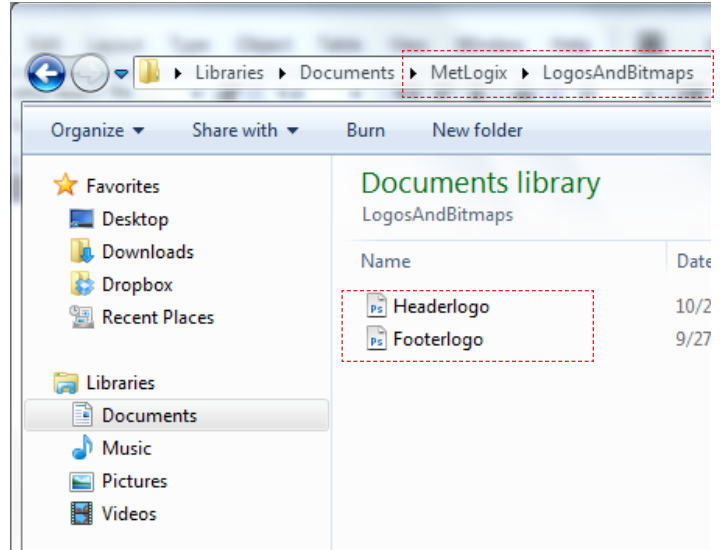
7.2.6 Printouts

Your L2 Plus system includes standard reports that may be printed on-demand or automatically at the end of a test run.

Reports printed on-demand are output from the display you are viewing in combination with the L2+ symbol. Report types are:

- Run Report
- Graph Report
- Tolerance Report
- Statistics Report

Reports are discussed in more detail in Section 6 - Data Management.



Metlogix Directory

Save .bmp files for Header and Footer in "LogosAndBitmaps" sub-directory

Specify whether to print the grid lines that display on all graph views.

Specify whether to print the column header labels on reports with tabular results.

Specify whether to print a report header (Yes) or not to print a report header (No).

*Save a .bmp file for a header logo. Must be named "Headerlogo".
Save a .bmp file for a footer logo. Must be named "Footerlogo".
For best results, .bmp file should have a height of between 25 and 100px.
The maximum pixel height is 300px.*

Printouts

Print report header	Yes <input checked="" type="checkbox"/>	
Print column headers	Yes <input type="checkbox"/>	
Print grid lines	Yes <input type="checkbox"/>	
Print bitmap in header	Center <input type="checkbox"/>	
Print bitmap in footer	No <input type="checkbox"/>	
Print user name in header	Left <input type="checkbox"/>	<i>Print User Name in Header. Print Left, Right or Center.</i>
Print date/time in header	Right <input type="checkbox"/>	<i>Print Date/Time in Header. Print Left, Right or Center.</i>
Print page number in footer	Yes <input type="checkbox"/>	<i>Print Page Number in Footer. Print Left, Right or Center.</i>
Print custom text in header	<input type="text"/>	
Print custom text in header	<input type="text"/>	
Print custom text in header	<input type="text"/>	
Print custom text in footer	<input type="text"/>	

Print custom text in headers boxes or in footer.

Printouts Settings

7.2.7 Sound Setting

The Sound Setting is used to specify audible annunciation for various L2 Plus actions. These actions are for the following:

- Button activation
- Test run completion
- Test failure



Note

Sound files cannot be changed.

Sounds Settings	
Enabled	Sound
Yes	Make a sound when a button is activated <i>When YES, an audible sound is made via the workstation whenever a target or button is pressed or selected.</i>
No	Play sound when a Test completes <i>When YES, an audible sound is made via the workstation when a test run is completed. The default is NO.</i>
No	Play sound when a Test fails <i>When YES, an audible sound is made via the workstation when a test run fails due to an out-of-tolerance condition. The default is NO.</i>

Sounds Settings

7.2.8 Security Settings

When Security Settings is a privilege, the user may enter new users and edit user information.

A Supervisor may only create and edit User level information. A Supervisor may not edit the Super Administrator profile.

Security Settings

Display name

Password

Max days password is usable

Account enabled Yes No

Automatically login as this user No Yes

Access rights for JJones2013

Capability	Access
Printouts	No
Security Settings	No
Sounds Settings	No
Desktop Settings	No
Load Cell Corrections	No
Loads	No
Motion	No
Test Authoring	Yes

Settings

About

*This user has no privileges other than Test Authoring.
 The user has no access to Settings functions other than the ABOUT section. The ABOUT section is used to identify product serial numbers, software revision and dates as "read only".*

*Security Setting
Privileges for a User with restricted access to only Test Authoring*

7.2.9 Desktop Setting

The Desktop Setting is used to specify and include specialized targets on your L2 Plus workstation that aide in changing units and testing mode. There is also an option that causes the L2 Plus workstation to shutdown when exiting the L2 Plus software application.

Units Button

The Units button provides a target that allows the user to toggle between Metric (SI) and English (Imperial) units of measure.

Keyboard Button

The Keyboard button, when pressed or selected, launches a virtual keyboard on your display.

When the Keyboard button is set to Extra, it appears in the “Extra” drop down menu.

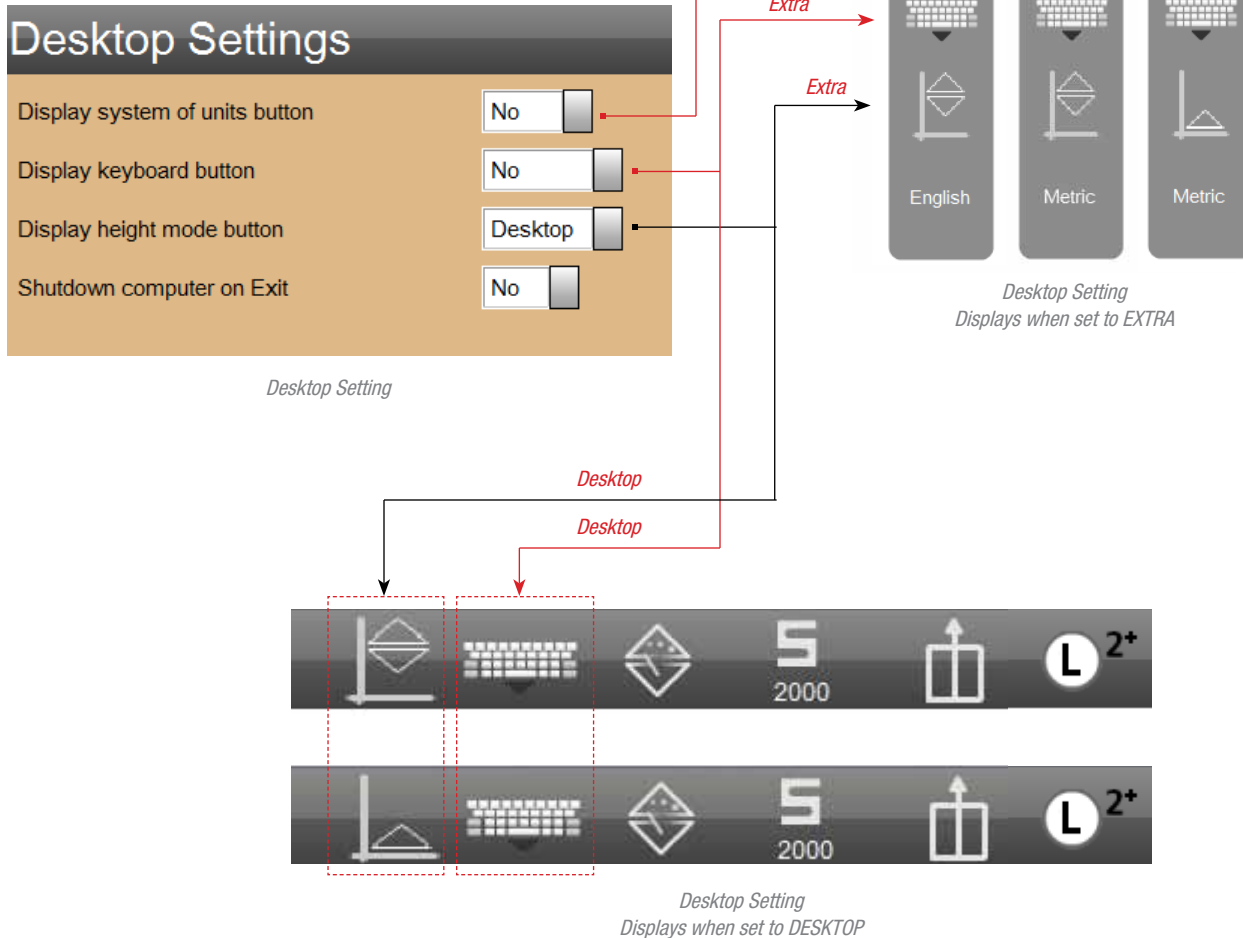
When the Keyboard button is set to Desktop, an icon of a keyboard appears on the header tool bar. Press the icon to launch the virtual keyboard.

Height Mode Button

The Height mode button lets you change your operating mode between Normal and Height modes. Normal mode uses a D to display distance. Height mode uses an H to display height.

When the Height button is set to Extra, it appears in the “Extra” drop down menu.

When the Height button is set to Desktop, an icon of a keyboard appears on the header tool bar. Press the icon to toggle between Normal and Height mode.



7.2.10 Load Cell Correction

The Load Cell Correction setting should be used by experienced and authorized personnel responsible for load cell calibration. This setting is used during field calibration of load cell sensors used with your L2 Plus System.

Additionally, this setting is used for linear error correction and for setting frame deflection compensation.



WARNING

Changes within the Load Cell Correction setting must be performed by personnel with experience in load cell sensor calibration, linear error correction and deflection compensation.

Improper revisions to this section may result in damage to equipment.

Load Cell Corrections L 2+

Enable LEC No

Distance Nominal mm

Distance Observed mm

Enable deflection compensation No

Deflection Distance mm

Deflection Force N

Enable cell calibrations No

Tension	Nominal	Observed
#10	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#9	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#8	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#7	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#6	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#5	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#4	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#3	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#2	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>
#1	<input type="text" value="0.00"/>	<input type="text" value="0.00"/>

WARNING

Changes within the Load Cell Correction setting must be performed by personnel with experience in load cell sensor calibration, linear error correction and deflection compensation.

Load Cell Correction Setting

7.2.11 Loads

The Load Setting is used to specify options and characteristics concerning load measurement. The following options may be specified:

Compression Sign

You may specify how to designate a compression load using a negative sign. Tensile loads will have a positive sign (no sign actually shown), while compression loads will display a negative sign. Or, you may choose to reverse the sign so that tensile loads have a negative sign to distinguish them from a compression load (no sign).

Grip Protection

The Grip Load setting allows you to enter a load capacity limit based on the testing fixture used. For example, you may have a 1000N load cell, but you are using a test fixture with a maximum testing capacity of 50N. In order to protect the test fixture, you can set the Grip Load to 50N. When 50N is reached, the test run will terminate and protect the test fixture.



WARNING

Excessive crosshead speed may make it impossible to stop in sufficient time to prevent an overload. Do not use high speeds, particularly in compression directions.

Frame Capacity

The L2 Plus software will identify the test frame capacity that it is communicating with. This is a read-only function.

Limits the load based on the grip capacity. Test run will terminate when this load is reached. 0.00N means there is no load limit assigned.

Select how a negative (-) sign is used to distinguish between tensile and compressive results.

Indicates the connected test frame's load capacity. Read-only.

Limits the load measurement of the connected load cell sensor. 100% means the load cell sensor can measure to its specified full scale capacity.

Select the load cell sensor model used for this system or for a test and on which the Max load allowed is specified.

Loads Setting

Load Cell

The L2 Plus software identifies the load cell sensor model that is connected to the test frame and that is communicating and controlled by the L2 Plus workstation.

You may use the drop down list to select a load cell model if you choose to have a specific load cell associated with this system or a particular test setup.

Load Cell Limit

You may limit the capacity of a connected load cell sensor by specifying the maximum load allowed. Using this limit can help prevent accidental overloads. If you are using a 100N load cell, and you specify the Max load allowed at 75%, the 100N load cell will measure between 0 and 75N. A test run will terminate if this load limit is exceeded.



WARNING

Excessive crosshead speed may make it impossible to stop in sufficient time to prevent an overload. Do not use high speeds, particularly in compression directions.

Disable Overloads

Pressing the Disable Overloads button disables all overload protection for your system. Disable Overloads is used during a load cell calibration and should be reserved for experience personnel with expertise in load cell calibration.

Disabling overload protection requires the user to enter a password.



WARNING

Do not use Disable Overloads unless you are an experienced technician performing a field load cell calibration.

Disable Overload Setting
Password Protection Required.

WARNING

Obtain the Overload Password from your Starrett representative.

7.2.12 Motion

The Motion Setting is used to limit the Maximum crosshead travel speed allowed. You may specify a lower maximum velocity.

Starrett Models	Maximum Speeds Allowed	
	mm/min	inch/min
FMS/MMS 500N	1524	60
FMS/MMS 1000N	1524	60
FMS/MMS 2500N	1524	60
FMS/MMS 5000N	1524	60
FMD/MMD 10kN	1524	60
FMD/MMD 30kN	1524	60
FMD/MMD 50kN	752	30

Maximum Test Speeds

Reduce the maximum crosshead velocity by reducing the value setting.

Motion Setting

This user has Test Authoring privileges. This user may create a test, edit a test, copy a test, rename a test and delete a test.

7.2.13 Test Authoring

When a user has the Test Authoring privilege (YES), the user has the ability to create a new test and to revise an existing test including:

- Editing
- Copying
- Renaming
- Deleting

If Test Authoring = No, the user cannot modify a test setup.



WARNING

A test setup may be deleted by any user with access to the Metlogix/Tests sub-directory. To prevent unauthorized test setup deletion, take appropriate measures to restrict users from this Windows-accessible function.

Capability	Access
Printouts	No
Security Settings	No
Sounds Settings	No
Desktop Settings	No
Load Cell Corrections	No
Loads	No
Motion	No
Test Authoring	Yes

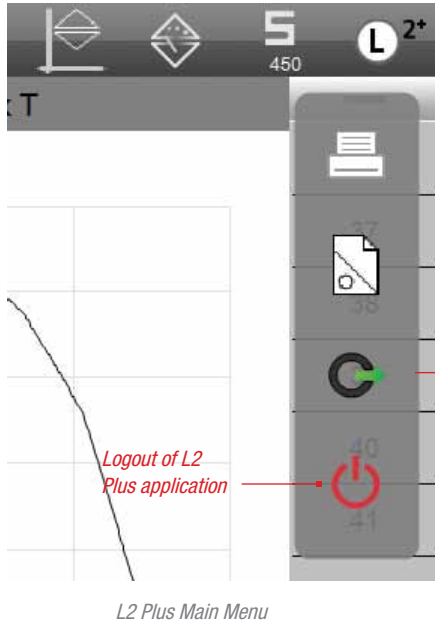
Security Setting

Privileges for a User with restricted access to only Test Authoring

7.3 System Login

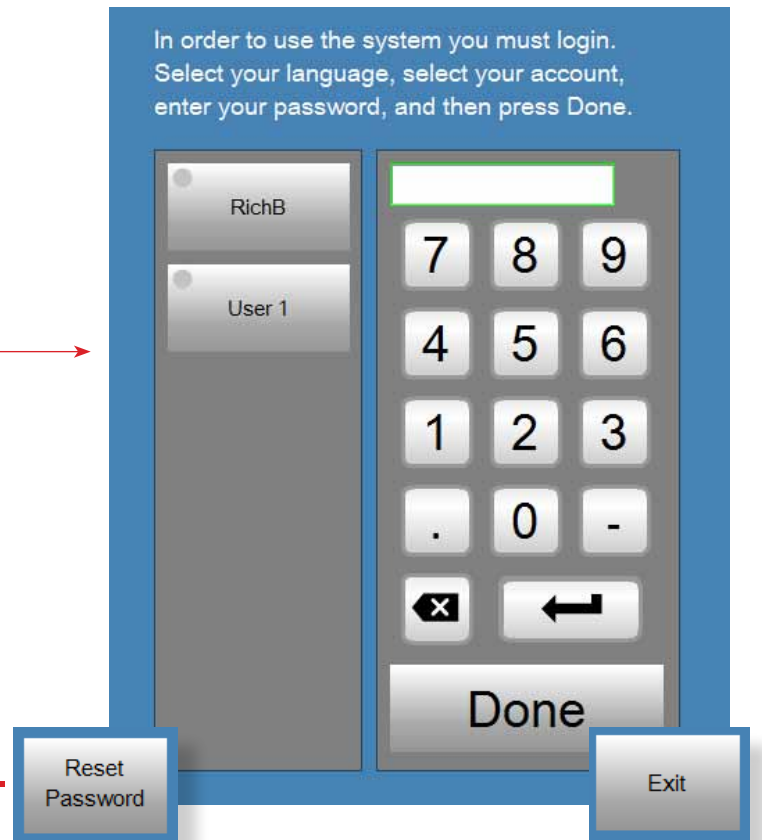
The System Login function may be used to require users to login to the L2 Plus System by selecting their User Name and entering their password. This function is ideal for applications requiring audit trails of who is using the system.

If User Names or passwords are not being used, it is not necessary to use the System Login.



7.4 System Logout

The System Logout function is used to exit and terminate your L2 Plus application session.

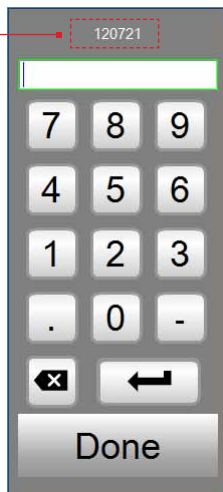


Password Recovery
Should you forget your password and you are NOT able to retrieve through the normal Security Setting, you may contact your Starrett representative for a temporary password. Selecting RESET PASSWORD will launch a recovery login.

System Login view

Exit L2 Plus application

The number displayed at the top of the password entry box will be given to your Starrett representative. This number will be used to generate a temporary password that will be emailed to you.





Corporate Headquarters

The L. S. Starrett Company
121 Crescent Street
Athol, MA 01331 USA
Tel: 978-249-3551

Starrett Metrology Division

Starrett Kinematic Engineering, Inc.
26052-103 Merit Circle
Laguna Hills, CA 92653 USA
Tel: 949-348-1213