

User Manual 2822

A5534 A4537 Touch Screen Control Software

Rev. 3 - 20 October 2021

Purpose of this User Manual

This User's Manual contains the full description of the A5534 A4537 Touch Screen Control Software.

Change Document Record

Date	Revision	Changes
29 October 2012	0	Preliminary
25 September 2012	1	Updated Log Out description
11 February 2014	2	Updated bookmark §4
20 October 2021	3	Updated with A4537 information

Reference Documents

SY5527 User's Manual
SY4527 Quickstart Guide
SY5527 Quickstart Guide

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1 Introduction

The A5534 - A4537 LCD Touch Screen Control Software is an application that allows to manage all the System, Board and Channel parameters related to the SYx527 power supply system, via the A5534 - A4537 LCD Touch Screen. No software installation procedure is required.

System requirements

SY5527 Power Supply System with A5534 LCD Touch Screen or SY4527 Power Supply System with A4537 LCD Touch Screen installed.

2 System Log-in

At System turning On, the following screen is displayed:

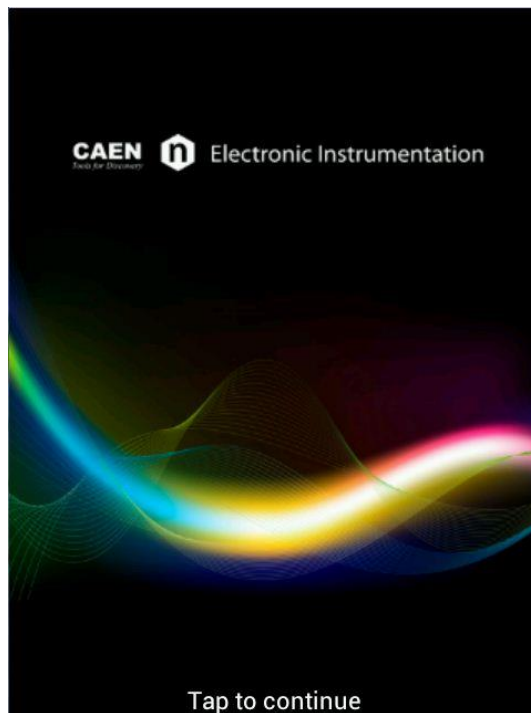


Fig. 1 – Welcome Window

Tap the screen and the log-in form will be shown:

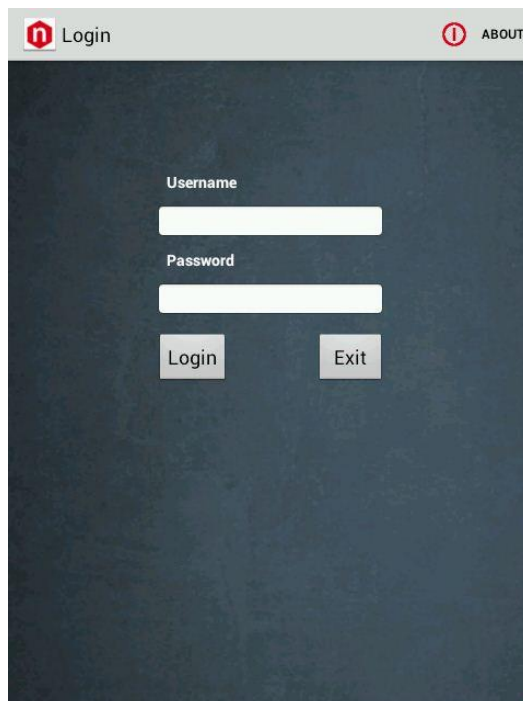


Fig. 2 – Log-in form

Touch the screen to launch the virtual keyboard, then type

User name: admin (default)

Password: admin (default)

tap Next and Log In and the System Home will be shown

3 System management

After successful log in, the available System Home is shown:

System		SYSTEM PARAMETERS	
[0] T1536	32 Ch Neg. Voltmeter	Num Ch: 32 FW Rel: 0.0 S/N: 37	>
[1] T1536	32 Ch Pos. Voltmeter	Num Ch: 32 FW Rel: 0.0 S/N: 41	>
[3] A1535	24 Ch Neg. 3.5KV 3mA	Num Ch: 24 FW Rel: 2.2 S/N: 506	>
[4] A1676	A3009k	Num Ch: 26 FW Rel: 0.0 S/N: -1	>

Fig. 3 – System Home options

System Home shows what types of boards are inserted into the crate and in which slot they are plugged into, between []. A short description of the board model follows with its features, serial number, and firmware release. Tapping “System Parameters” (on “Action bar”) allows to access all the system monitor and settings:

System	
Power Fan Stat	
PwFan 0	 1424
PwFan 1	 1424
PwFan 2	 1460
HV Fan Stat	
HVFan 0	 0
HVFan 1	 3212
HVFan 2	 3397
HvFan Speed	LOW <input checked="" type="radio"/> MED HI
Voltages	
Vdd	5.10V
-Vcc	-13.01V
+Vcc	12.98V
Vfan	24.17V
Vpwr	49.14V
Vcpu	12.92V
Commands	
Kill	
Clear Alarm	
Info	
Symbolic name	SystemOne
Command Queue Status	0
CPU load	1 min: 00.00 5 min: 00.00 15 min: 00.00
Memory status	Total: 246960 Used: 7696
	Free: 186292 Buffers: 28432

Fig. 4 – System setting options

This Panel allows to:

- set Hv Fan Speed (LO, MD, HI) and Symbolic name
 - To set Fan Speed or Symbolic name tap on the relevant row
- monitor HV Fan Status, Power Fan Status, Power Supplies status etc.
- send

- Kill command: tap Kill button; a pop-up window will appear: if you want to forward the KILL command, tap the YES button
- Clear alarm command: tap Clear Alarm button; this command allows to remove all the alarm conditions which appeared in the Channel rows of the Channel Controller. This operation automatically resets the alarm conditions without requiring the power on of the channels. Moreover, it sets the TRIP counter again to its initial programmed value, so that the TRIP counter will start again from the programmed TRIP value as soon as another Over Current condition occurs.

Draw the finger in order to scroll the screen. Tap on “System” Icon (left high corner) in order to go back to System Home.

Channels Panel

Tapping on one Board’s name on System Home, allows to access channels parameters and alarm messages (the example refers to A1535 board):

Board 3: A1535		BOARD PARAMETERS			
		Set V0Set	Set I0Set	All ON	All OFF
		I0Set	3000.0 uA	IMon	0.0 uA
8	CHANNEL08	V0Set	1000.0 V	VMon	0.0 V
		I0Set	3000.0 uA	IMon	0.0 uA
9	CHANNEL09	V0Set	1000.0 V	VMon	999.5 V
		I0Set	3000.0 uA	IMon	0.0 uA
10	CHANNEL10	V0Set	1000.0 V	VMon	0.5 V
		I0Set	3000.0 uA	IMon	0.5 uA
11	CHANNEL11	V0Set	1000.0 V	VMon	1000.0 V
		I0Set	3000.0 uA	IMon	0.0 uA
12	CHANNEL12	V0Set	1000.0 V	VMon	0.0 V
		I0Set	3000.0 uA	IMon	0.0 uA
13	CHANNEL13	V0Set	1000.0 V	VMon	61.0 V
	Up	I0Set	3000.0 uA	IMon	0.0 uA
14	CHANNEL14	V0Set	1000.0 V	VMon	49.5 V
		I0Set	3000.0 uA	IMon	0.0 uA
15	CHANNEL15	V0Set	1000.0 V	VMon	0.0 V
		I0Set	3000.0 uA	IMon	0.0 uA
16	CHANNEL16	V0Set	1000.0 V	VMon	0.0 V
		I0Set	3000.0 uA	IMon	0.0 uA

Fig. 5 – Channels panel

The main Channels Panel shows the board’s channel list along with a subset of parameters (V0set, I0set, VMon, IMon); channels ON are highlighted in green; the “channel status” is written under the channel name. Each channel has a button on the right of the row for switching ON/OFF.

Four “Global Buttons” in the highest row allows to write V0Set/I0Set on all channels and to turn all channels ON/OFF.

To access all monitor/set options, tap the relevant channel row and the full list will be displayed:

Board 0> Ch 7	
Name	CHANNEL07
I0Set	3000.0 uA
V0Set	1000.0 V
IMon	0.0 uA
VMon	1.0 V
Pw	Off
Status	
RUp	500 V/s
RDWn	500 V/s
Trip	10.0 s
I1Set	300.0 uA
SVMax	3500 V
POn	Dis
PDwn	Kill
Triplnt	

Fig. 6 – Channels parameters

By tapping the relevant row, it is possible to edit the set parameters (displayed in blue). Monitor parameters names are written in black. The following table describes the available parameters:

Table 1 – Description of Channel Parameters

Parameter	Description
CHANNEL NAME (settable):	descriptive name for the relevant channel
V0SET (settable):	the first of the two allowed voltage programmable values.
I0SET (settable):	the first of the two allowed current limit programmable values
V1SET (settable):	the second of the two allowed voltage programmable values
I1SET (settable):	the second of the two allowed current limit programmable values
RUp (settable):	the Ramp-Up parameter value, i.e., the maximum voltage programmable increase rate.
RDWn (settable):	the Ramp-Down parameter value, i.e., the maximum voltage programmable decrease rate.
TRIP (settable):	the TRIP parameter value, i.e., the maximum time an Over Current condition is allowed to last.
SVMAX (settable):	maximum voltage value programmable for the channel. If the value set as SVMAX is less than the value of the V0SET/ V1SET parameter, the latter will automatically decrease to the SVMAX value.
VMON (monitor):	monitored voltage value
IMON (monitor):	monitored current value
STATUS (monitor):	it displays the channel status.
PW (ON/OFF):	the Power parameter shows the ON/OFF channel status. As this parameter is set ON, the channel is switched on (if the INTERLOCK is not active and if the channel is enabled either locally or remotely).
POn (EN/DIS):	Power-On option, which can be enabled or disabled. If this option is enabled, at Power-On or after a Restart each channel is restored in the same condition (defined by Power parameter) it was before the Power-Off or Reset. If this option is disabled, at Power-On or after a Restart all channels are off, independently from the condition in which they were before the Power-Off or Reset.
PDwn (Kill/Ramp):	Power-Down option, which can be set as KILL or RAMP. It affects the way the channels react at a Power-Off command caused by a TRIP condition. If the KILL option is selected, the relevant channel will be switched off at the maximum rate available. If the RAMP option is selected, the voltage will drop to zero at a rate determined by the value of the Ramp-Down parameter programmed for that channel.
Triplnt	2N-bit word (Dec. $0 \div 2^{2N-1}$), where N is the number of the board's Internal Trip Bus lines. Bits [0;N-1] allow the channel to sense the trip status from the corresponding lines when set to one; in the same way, bits [N;2N-1] allow the channel to propagate the trip status over the Trip Bus: bit N on line 0 and so on (see SY5527 User's manual)
TripExt	Must be set in the $0 \div 255$ range. Bits [0;3] allow the channel to sense the trip status from the corresponding lines when set to one; in the same way, bits [4;7] allow the channel to propagate the trip status over the trip bus: bit 4 on line 0 and so on (see SY5527 User's manual)

By tapping the Channel's name in the highest row, it is possible to go back to Channels controller.

Board Panel

Tapping "Board parameters" (1st row in Channels Panel) allows to monitor the following parameters:

  Board 0	
BdStatus	0
HVMax	3597 V
Temp	25 °C

Fig. 7 – Board parameters

Tap on "System" Icon (left high corner) to go back to System Home.

4 Additional Options

To access other options, go to System Home (see Fig. 3) tap the “options” icon in the upper right corner:



Fig. 8 – Options drop down

Tap one option to access it.

Sessions

The Session option shows the parameters of the connected Users sessions.

Sessions				
User	Level	Com Type	Login Time	Ip Address
admin	admin	TCP/IP	Fri Dec 14 15:03:11 2012	
admin	admin	TCP/IP	Fri Dec 14 17:18:49 2012	

Fig. 9 – Session parameters

Settings

Settings options allows the following selections:

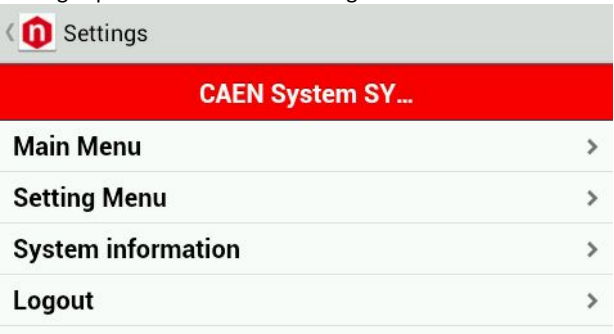


Fig. 10 – System menu options

Main Menu

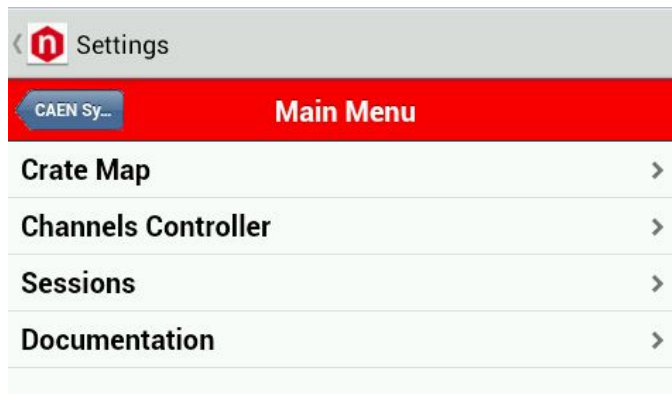


Fig. 11 – Main menu options

This option allows to access:

- **Crate Map:** shows what types of boards are inserted into the crate and in which slot they are plugged into
- **Channels Controller:** to be implemented
- **Sessions:** shows the parameters of the connected Users sessions
- **Documentation:** allows to download the available technical manuals and guides

Setting Menu

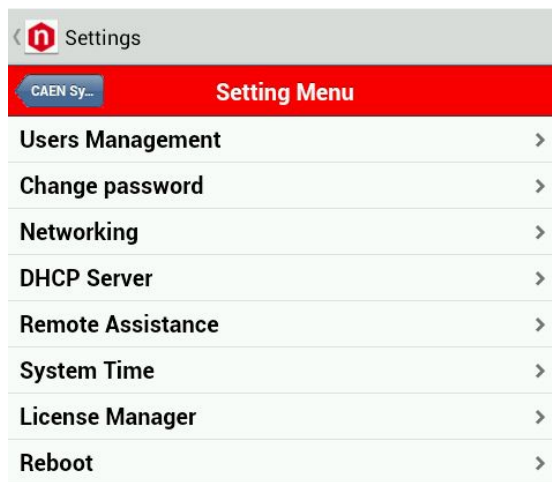


Fig. 12 – Setting Menu

The Setting Menu has the following options:

Users Management: shows the parameters of the connected Users and allows to add new ones

Change password: will open a form box that allows to update the User's password

Networking: allows to configure the SYx527 System for network connection. The Ethernet connector provided with the system is a 10/100baseT connector and can be used to interface the SYx527 system to an Ethernet LAN. This allows the system control via an external standard PC connected to a TCP/IP network and running a web browser. Before establishing a connection to a TCP/IP network, a specific IP Address, IP Net Mask must be assigned by the local Network Administrator to the SYx527 System. If the User needs to connect to the SYx527 system from outside the local network, a Gateway address must be specified in the TCP/IP settings

DHCP Server: allows to assign IP addresses to the Client's PC connected to the network

Remote Assistance: allows to enable or disable the remote assistance. When Remote Assistance is enabled, CAEN personnel can access the system for remote maintenance intervention; to do this the system must also be connected to an externally accessible network.

System Time: The System time option allows to set the time and date of the SYx527

Reboot: allows to immediately reboot the system. All currently logged in users will be disconnected and all services will be re-started

License Manager: has two options:

- System Add On allows to activate the optional “enhancement activation code”
 - CAEN HV Control Software functionality enhancement is available upon purchase. If you have purchased the “Control software functionality enhancement activation code” (ordering code WSW4536XAAAA), prior to installation of the CAEN HV Control Software, you have to go to “Main menu” > License Manager, then type the “enhancement activation code” you received into the “Insert key” field than select save. Install CAEN HV Control Software as described in the relevant manual and the “Advanced Features” will work!
- Wi Fi Add On allows to activate the optional A4535 Wi-Fi Dongle (see Sx5527 Quick start guide)
 - The A4535 Wi-Fi Dongle allows the wireless control of the SYx527; in order to use it connect the A4535 into the USB port of the A4528 CPU and select License Manager > Wi-Fi Add-On; type the Activation Code provided with the A4535; at this point, the SYx527 will be listed in the wireless network of your PC (if this does not happen, then reboot both the System and PC) click on the SY5527 icon then perform the System Access.

System information

This command allows to access to the System Model and version, running firmware version.

Upgrade

The Upgrade option allows to update the sotware version of the A5534; to do this:

- Connect the USB memory storage device containing the upgraded software version to the A5534
- Select “upgrade” (see Fig. 8)
- Browse the updated software and select “upload”

About

Provides software version and agreement licence.

Log out

It allows to disconnect from the System. If the System remains idle for 30 minutes, Log out occurs automatically.



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