

Quality is more than a word



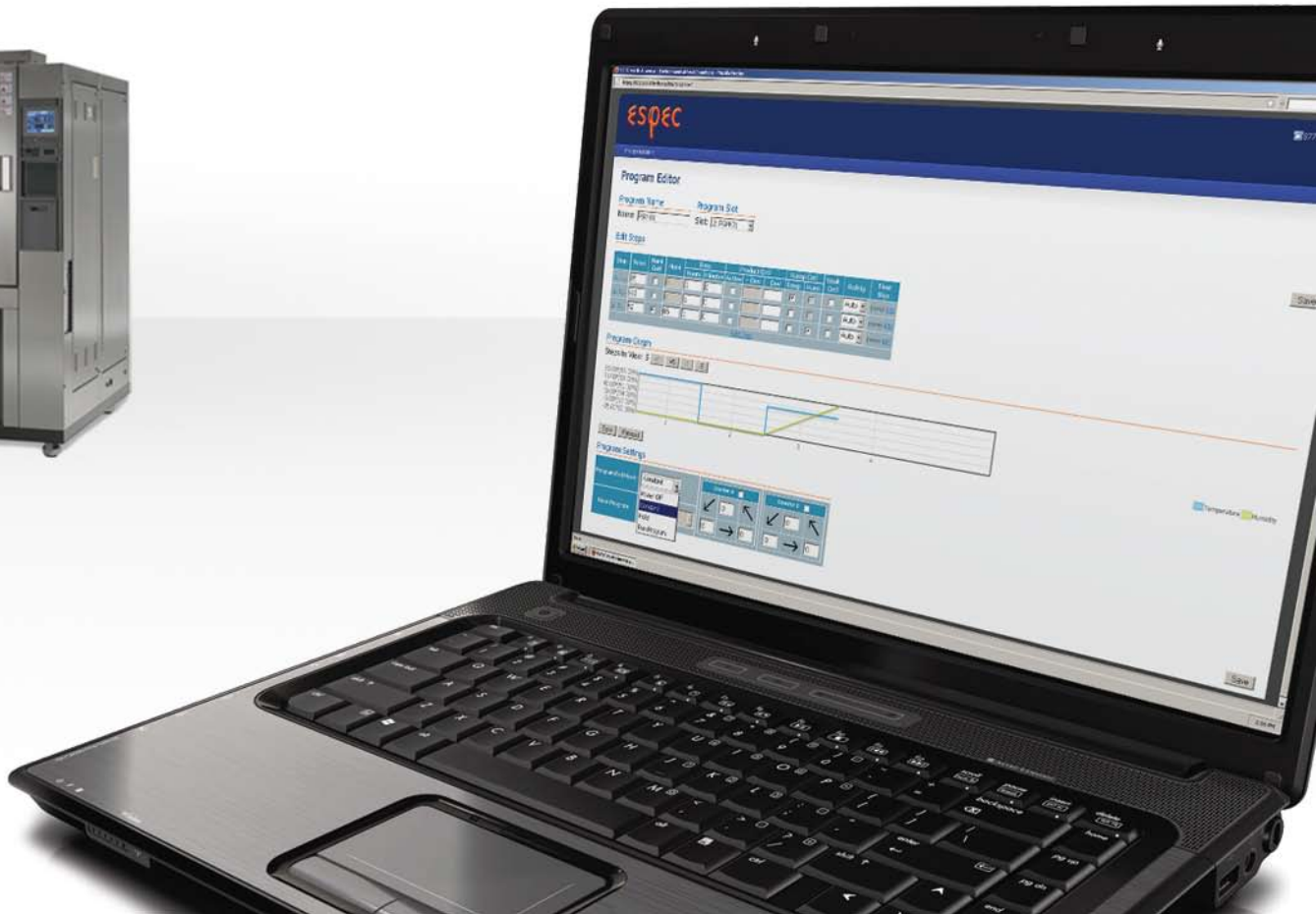
# ESPEC Web Controller

## Remote Chamber Management



# Test chamber access via Ethernet

Instantly connect and control your chambers from anywhere  
without installing software.



# Features

ESPEC introduces the Web Controller, an embedded server/software solution that allows monitoring and programming your chamber via any PC on your network.

For over ten years, ESPEC's SCP-220 programmer/controller has been favored by test chamber operators for its reliability and ease of use. Now the same ease of operation is available remotely via a web browser.

Independent of the controller itself, the Web Controller adds additional capabilities for datalogging, programming, and new features such as alarm notification via email.

## Innovative access:

The Web Controller steps ahead of competitive remote access solutions by hosting the software remotely, at the chamber. No local software to install, just a web browser and access to the LAN is required. No need for a USB thumb-drive either, as all data files can be downloaded and uploaded from the web browser.

Because there are only seven screens, all operational functions are easy to find and use. (One-time and infrequently-accessed settings still use the SCP-220 front panel.) The gray side-bar on all pages shows the current status of the chamber for easy monitoring.

## Advanced Programming:

Users of the SCP-220 will appreciate the expanded functionality for programming. When editing a program, all steps can be seen and changed on the same screen, without having to switch back and forth. (See page 5)

For added convenience, programs may be downloaded from the chamber for back-up/storage, or uploading to another chamber.

## Built-in datalogging:

Because the Web Controller is running with the chamber, a dedicated PC for datalogging isn't required. The monitor page features a robust trend-graph display of the chamber operation, as shown on the next page. Test data can be downloaded for analysis and graphing in Excel.



Available for ESPEC's popular SCP-220 touch-screen programmer.



Accessible via web browsers, even on mobile devices such as BlackBerry and iPhone.



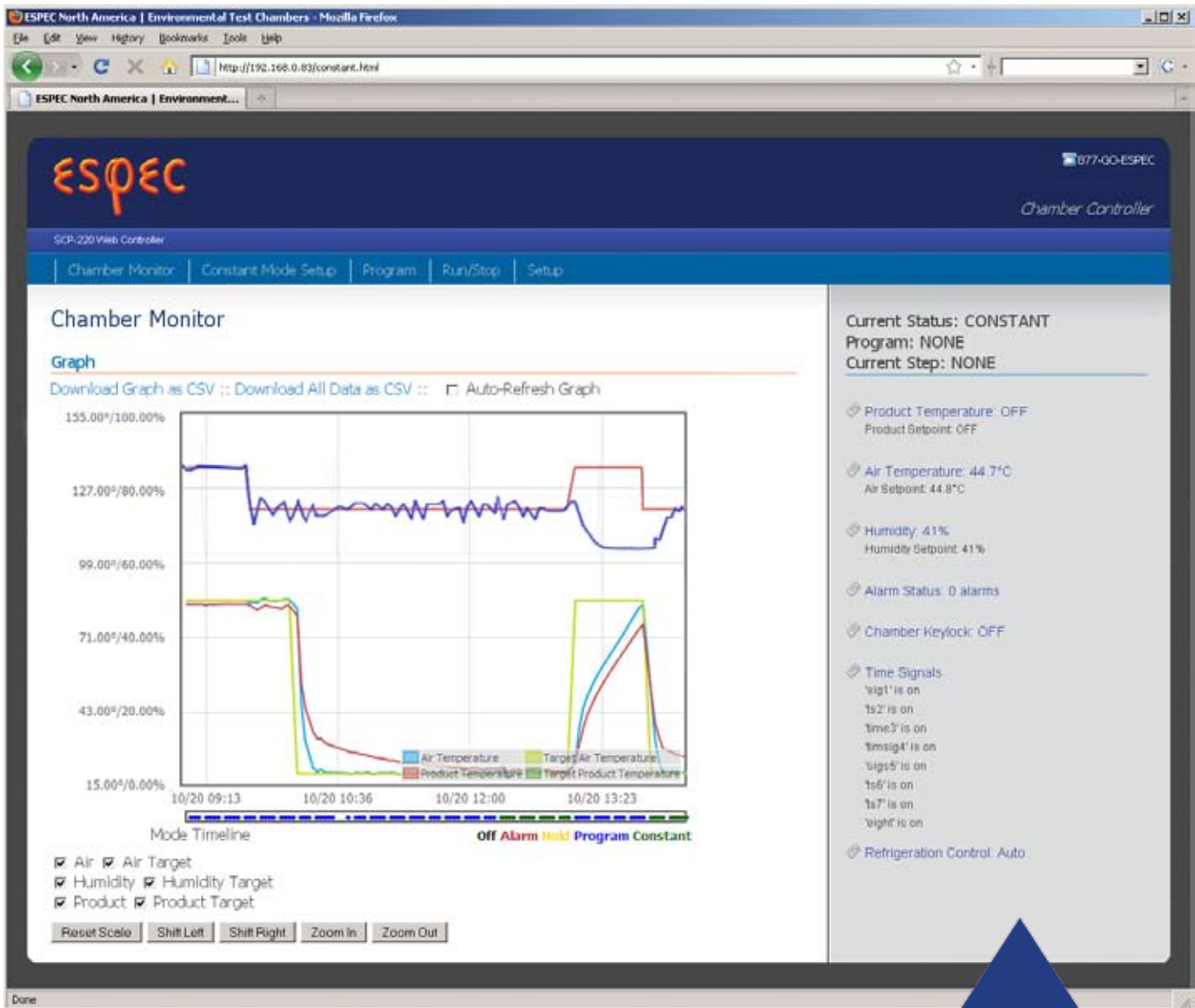
Data can be downloaded to a CSV file during or after a test.

# Monitoring

## Interactive historical graph and easy downloading

The graph shows the set, or 'target' conditions, as well as the actual conditions. Dragging a selection box on the graph allows you to quickly zoom in. The 'mode timeline' across the bottom of the graph documents the chamber's operational status. Data may be downloaded using the options at the top of the page.

- CSV download of displayed data, or all data in memory
- Interactive graph shows setpoints and actual data
- "Mode Timeline" displays operation mode status over time
- If running a program, detail of the program status is displayed below the 'reset scale' button.



### Current Status Sidebar

The Current Status sidebar is available on all main pages so you can always see the status of the chamber. Displayed data includes:

- Operation mode: Constant, Program, Stop, Hold, or Alarm. If program mode, the program name and step is displayed.
- Current conditions and setpoints for temperature, product temperature, and humidity, as applicable.
- Alarm, Keylock, and refrigeration mode.
- Time signal list shows currently active output relays on the chamber.

# Programming

## Simplified programming all on one screen

All of the steps for the selected program are shown in a table format for easier editing. Below the table is a graph to help visualize how the program will change set points. At the bottom of the page you can set program-end mode and cycling counters.

- Use 'Program Slot' setting to save programs to memory on the SCP-220, or on the local PC.
- Locally-saved programs may be uploaded to other chambers
- Steps may be inserted or deleted

The screenshot displays the ESPEC Web Controller interface for programming a chamber. The main content area is titled "Program Editor" and includes the following sections:

- Program Name and Slot:** Name: VALIDATE, Slot: 1: VALIDATE
- Edit Steps Table:**

Step	Temp	Humi Cntl	Humi	Time		Product Cntl			Ramp Cntl		Soak Cntl	Refrig	Time Sigs
				Hours	Minutes	Active	+ Dev	- Dev	Temp	Humi			
1	85	<input type="checkbox"/>	0	1	0	<input type="checkbox"/>	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Auto	1,2,3,4,5,6,7,8,10,11,12 C:R
2	45	<input checked="" type="checkbox"/>	66	1	0	<input type="checkbox"/>	0	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Auto	2,4,7,12 C:R
3	111.5	<input type="checkbox"/>	0	1	0	<input type="checkbox"/>	0	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Auto	5,7,10,12 C:R
4	85	<input checked="" type="checkbox"/>	25	1	0	<input type="checkbox"/>	0	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Auto	11,13,11 C:R
5	-60	<input type="checkbox"/>	0	1	0	<input type="checkbox"/>	0	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Auto	6,7,9 C:R

Below the table is a "Program Graph" showing Temperature (blue line) and Humidity (green line) over 5 steps. The graph shows temperature decreasing from 85°F to -60°F and humidity increasing from 0% to 66%.

At the bottom, "Program Settings" include:

- Program End Mode: Hold
- Next Program: 1: VALIDATE
- Counter A: 99 (range 1-5)
- Counter B: 0 (range 0-0)

## Online Demonstration

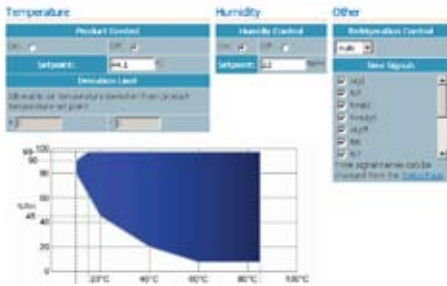
A live Web Controller is available at ESPEC's website for demonstration. Try out all of the functions of the Web Controller right now, even test connectivity with your mobile device.

[www.espec.com/wc](http://www.espec.com/wc)



# Function Screens

## Constant Setup:



The Constant Setup page is used for changing the 'constant' operation settings for temperature and humidity. If constant mode is currently on, the changes will take effect when the 'submit' button is selected.

- Set temperature, humidity, and product temperature, as applicable.
- Set refrigeration mode and time signal outputs
- Humidity control range chart displayed as reference for humidity models.

## Program Setup:



On the Program Setup page you can see all the programs currently saved on the SCP-220. Selecting 'new program' or one of the existing programs will bring up the Program Edit screen (as shown on the previous page). "Send Program to Controller" allows the user to upload programs stored on the local computer (or elsewhere on the network) to the controller.

- Save-as capability by opening a program and saving to a different memory slot
- Delete programs by selecting red button next to its name
- Open pre-programmed Mil-Std tests and save to a memory slot for editing

## Run/Stop Page:



Duplicating the functions of the SCP-220, the Run/Stop page lets the user select constant or program mode, or to stop operation. The green 'lamp' indicates the current active mode.

- Choose 'stop operation', 'run constant', or 'run program'
- Displays current settings for constant mode as reference
- Allows selection of program and starting-step for program mode
- When in program mode, 'pause', 'continue', and 'next step' buttons are active.
- Pop-up dialog boxes are used to confirm changing the mode.

## Setup Page:



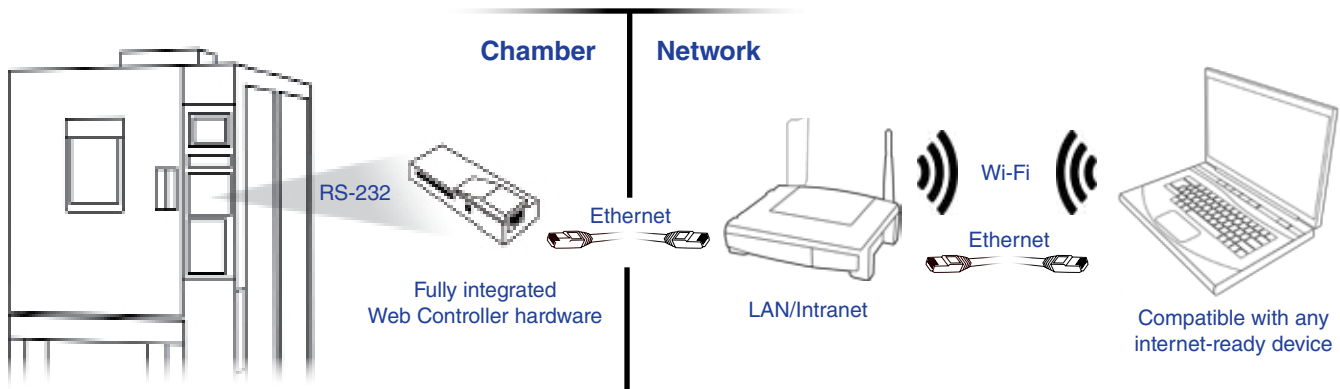
The Setup page is used for changing the settings of the Web Controller. The user may give convenient names to the chamber and the time signals for easy recall. Email settings are used for sending alerts if there is an alarm status.

- Allows configuration of Web Controller, protected via 'password'
- Setting of Network IP address, Netmask, Gateway, and DNS IP
- Setting of email account settings
- Chamber alarm notification is sent to email addresses entered
- Ability to set name of the chamber, and to clear stored test data

## Specifications

<b>Model</b>	SCP-220 Web Controller
<b>Purpose</b>	Simple remote operation of ESPEC SCP-220 controller via Ethernet
<b>Function</b>	View and control via standard web browser (recommend Internet Explorer 8 or Firefox 3.5)
<b>Capabilities</b>	<ul style="list-style-type: none"> <li>• Web browser access</li> <li>• Remote monitoring and control</li> <li>• Integrated data collection and download</li> <li>• Simple program creation and management</li> <li>• Copy programs from server to chamber and chamber to server</li> <li>• Allows for unlimited SCP-220 program capacity by storing test profiles on a network or PC</li> <li>• E-mail alert for chamber alarms</li> <li>• Use any standard wireless device (iPhone, iPod touch, Blackberry, etc.) for viewing and controlling through web browser</li> </ul>
<b>Communication interface</b>	10/100 baseT Ethernet
<b>Location</b>	The network connection is located at the chamber option panel. The web server components are located inside the electrical panel enclosure.
<b>Hardware</b>	Mini-server with MicroSD storage and SCP-220 RS-232 interface board.
<b>Version updating</b>	The firmware can be easily updated in the future through a memory card removal/installation process.
<b>Security</b>	View and edit access to the Web Controller is managed by the facility's LAN rules. Setup page requires passcode to save changes.

## Operation Diagram



### Compatibility:

The Web Controller is compatible with all ESPEC models that have SCP-220 programmer/controllers. This includes these model series:

- Platinous
- Global-N
- Platinum
- Walk-in, Agree, and custom models



(Not currently available for SCP-220TS thermal shock applications.)

### Retrofit Services

Expand the functionality of your existing ESPEC chamber by adding the Web Controller. All ESPEC chambers with SCP-220 programmers are eligible.

Contact ESPEC Customer Support at [www.espec.com](http://www.espec.com) for a quotation. Be sure to have the serial number of your chamber, and what type of existing communication interface it may have.



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