SceneControl® 5200
Console User Guide

SC5200 User Guide

P/N: 5017-00

Version 1.00
June 2014
Copyright © 2001–2014 by J.R. CLANCY INC.

J.R. CLANCY INC.
7041 Interstate Island Road
Syracuse NY 13209

Domestic Toll Free:	800 836 1885
International:	001 315 451 3440
24 Hour:	315 451 3440
Fax:	315 451 1766

General Inquiries
info@jrclancy.com

Software/Controls Inquiries
automation@jrclancy.com

Questions/comments regarding this document should be addressed to J.R. CLANCY INC.

This document contains proprietary and confidential information of J.R. CLANCY INC. and is protected by copyright law. The contents of this document may not be disclosed to third parties, translated, copied, or duplicated in any form, in whole or in part, without the express written permission of J.R. CLANCY INC.

J.R. CLANCY INC. reserves the right to change the information contained in this document without notice.

All product names shown are trademarks or registered trademarks of their respective owners.

For latest revision notes and updates check the Readme.txt file contained on your **RAYNOK** CD.

This page is left intentionally blank

SC5200 User Guide

The **SC5200** and **SC5200 P (PENDANT)** controllers are 10.2" Windows 7 touch screen controllers running the **RAYNOK MOTION CONTROL SOFTWARE** in rack mount and remote variants, respectively. The device is intended as a full featured main operator station. With the **SC5200** an operator has the ability to run cues, jog machines (with the **SC5200+ Expansion**), and control an entire Scene Control Motion Control System with a simple touch screen interface.

The **SC5200 P** is a remote device and is connected to a control point in the system via a 25' or 50' multi-harness cable. The **SC5200** is a rack mount device with the same screen as the **SC5200 P**, but it has additional features such as an *E-Stop Reset Lockout Key* and a 3-PIN XLR port for a Littlite Gooseneck LED light, along with a dimming knob.

To use either of the **SC5200** units, plug the power, ethernet, and Emergency Stop Connector to the closest Control Point. One power button on turns the PC/touch screen on, while another power switch enables communication to the Emergency Stop System via an embedded controller on a circuit board.

Once connected properly to the control system the **SC5200** can be used to *JOG* specific equipment, edit and execute cues, and create and execute *Manual Move Cues* via the installed **RAYNOK SOFTWARE**. For further information regarding **RAYNOK SOFTWARE**, consult the **RAYNOK SOFTWARE MANUAL**.

When the **SC5200** is turned on and communicating with the motors in the system via **RAYNOK**, it is ready to send GO commands. Other controllers in the system can also control machinery, so it is advised to set up various rules for all the control devices within the **RAYNOK SOFTWARE**. Consult your **RAYNOK** ADMINISTRATOR or the **RAYNOK SOFTWARE MANUAL** to take advantage of this functionality.

This document is a quick reference guide for the **SC5200** and explains the features, functions, buttons and operation of the various unit types. Please read the document carefully and practice safe operating procedures.

This page is left intentionally blank

Suggested Safety Procedures

There is no safety device more important to any machinery control system than an alert and properly trained operator. All personnel that use this motion control system must be properly trained in its safe operation prior to moving any equipment or machinery via the remote control system.

To ensure that the operator is properly prepared to engage in the operation of the machinery and equipment that this control system operates, consider these simple guidelines and safety checks. The list of notes below is just a set of guidelines and should never be taken as the only safety notices to be met. Use this list in conjunction with any performance and safety guidelines provided by the owners of the control system.

Before Operating the System

- Enable the Emergency Stop System
- Reset all axes via the **RAYNOK SOFTWARE**
- All axes should report ready in the status column
- Depress the Emergency Stop Button
- All axes should report E-stop in the status column
- Open the E-stop report view and ensure that the local E-stop button is reporting properly
- Reset the system and test any other Emergency Stop buttons that have been identified by your company or management as integral to the safe operation of the system
- Follow any other guidelines that have been outlined by your company management

To safely move a machine or equipment connected to the system

- **DO NOT WORK ALONE,** controlling this equipment from a remote location can be dangerous, always work with another individual when moving machinery and equipment
- With the assistance of another person, properly trained in the operation of the equipment, stationed in the vicinity of the machinery or equipment to be moved ensure that all equipment and personnel are clear and that there are no collision obstructions
- Understand the limitations of the equipment attached to the machinery
- Do not attempt to run a machine that has the potential to injure personnel who are working on it
- If there are personnel working directly on a machine or it's attached equipment, disable the axis in the control software and turn off the power to the motor drive
- If your system does not have audible or visual warnings that machinery is in motion, warn all personnel working in the vicinity of equipment being moved that it is about to move via a method approved by your management personnel (i.e. Verbally call out via a loud clear voice or radio communications *"Lineset number 22 standing by to move!!"*)
- Once the "GO" button has been depressed and the machinery is set in motion again warn all personnel working in the vicinity of the equipment that has been set in motion (i.e. Verbally call out via a loud clear voice or radio communications "Lineset number 22 moving!!")
- Maintain your hand in close vicinity to the STOP button
- Stay alert and stay in visual contact with the equipment in motion
- Your attention should only be diverted from the equipment in motion to check the computer screens to verify data pertaining to the current move
- When the equipment has come to a complete stop confirm with the personnel working in the vicinity that motion has stopped

List of parts - SC5200 P

The following diagrams below are intended to familiarize the operator with all the **SC5200 P** operator buttons and physical features. To run the main software, RAYNOK, consult the main RAYNOK SOFTWARE MANUAL.

SC5200 P Top View Layout

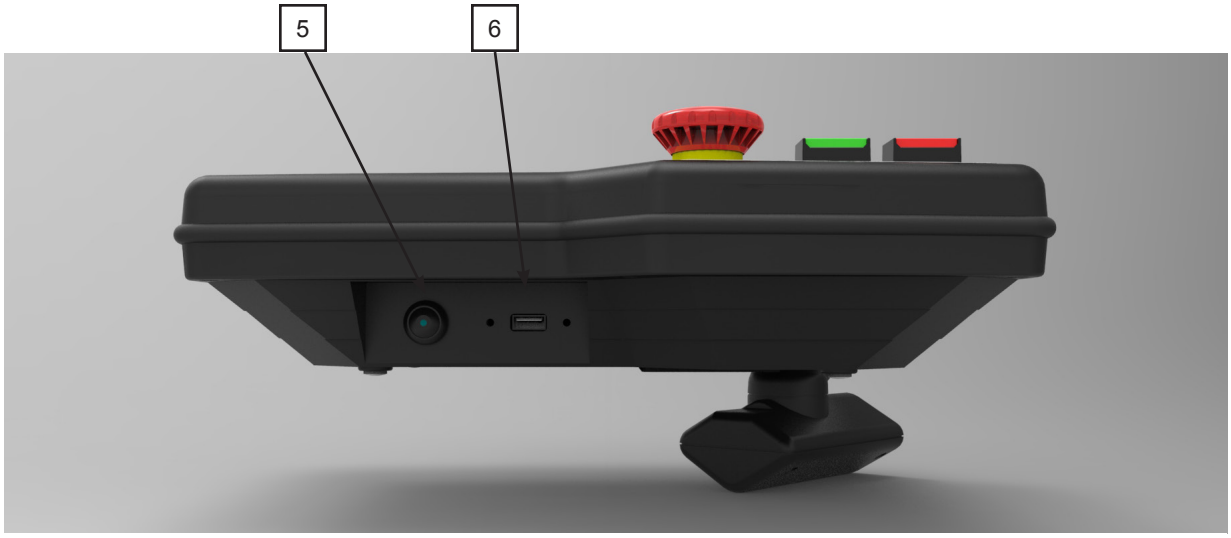
1 - Touch Screen Display
- Display touch screen of the unit. This is the main interface to RAYNOK. Simply tap any portion to simulate a left-click. To right-click, follow these two simple steps:

1. Touch the item with your finger (or stylus), and keep the finger or stylus pressed down gently. In a moment, a square or circle will appear.
2. Lift your finger or stylus, and the right-click menu appears, listing all the things you can do with that item.

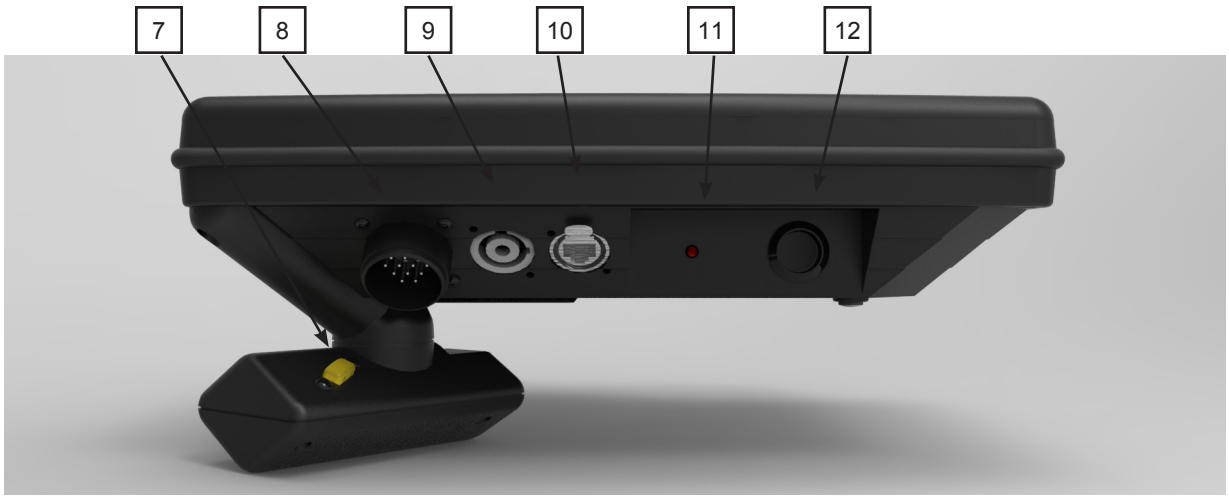
2 - E-stop Button
- Stops all motion and disables the main Emergency Stop System

3 - GO
- Used to send the GO command. The LED above will be lit RED when RAYNOK has seen the GO command.

4 - STOP
- Used to send the STOP command. The LED above will be lit RED when RAYNOK has seen the STOP command.



SC5200 P Front View Layout



SC5200 P Rear View Layout

5 - POWER Button
- Turns ON the main computer that runs the PC and the touch screen. The button will glow blue when the PC is turned on and running.

6 - USB Port
- Plug any USB device into this, such as a memory card stick, external hard drive, or a mouse

7 - HTR Button
- Must be held in the middle position before pressing the GO button.

8 - E-STOP port
- Connect the E-Stop system 14PIN CPC connector to this port, included in the cable harness provided with the unit

9 - POWER port
- Connect the power connector to this port, included in the cable harness provided with the unit

10 - Network port
- Connect the E-Stop system ethercon connector to this port, included in the cable harness provided with the unit.

11 - Heartbeat LED
- Should flash 1 second on and 1 second off when the power is turned on

12 - Micro Power Switch
- Flip this switch to turn the IO board of the **SC5200 P** on. This board needs to be turned on to enable the GO, STOP, E-STOP, and HTR buttons.

List of parts - SC5200 and SC5200+

The following diagrams below are intended to familiarize the operator with all the **SC5200** and **SC5200+ EXPANSION UNIT** operator buttons and physical features. To run the main software, RAYNOK, consult the main RAYNOK SOFTWARE MANUAL. The **SC5200+** adds further functionality to the base **SC5200** unit by adding 10 user programmable macro buttons and an analog jogging joystick.

SC5200 and **SC5200+** Front View Layout

1 – Light Dimmer
- This analog knob can be turned to adjust the brightness of the lights on an attached Littlite Gooseneck LED light.

2 – Light Power 3-PIN XLR
- Littlite Gooseneck LED light +12VDC power source outlet

3 - POWER Button
- Turns ON the main computer that runs the PC and the touch screen. The button will glow blue when the PC is turned on and running.

4 - Micro Power Button
- Turns the IO board of the **SC5200** on. This board needs to be turned on to enable the GO, STOP, E-STOP, and HTR buttons. The button will glow red when the Micro Board is turned on.

5 - Touch Screen Display
- Display touch screen of the unit. This is the main interface to **RAYNOK**. Simply tap any portion to simulate a left-click. To right-click, follow these two simple steps:

1. Touch the item with your finger (or stylus), and keep the finger or stylus pressed down gently. In a moment, a square or circle will appear.
2. Lift your finger or stylus, and the right-click menu appears, listing all the things you can do with that item.

6 – Hold to Run
- The HTR operator enables and inhibits all axes from motion. Press the HTR to enable all axes; release the HTR to inhibit all axes. Pressing this switch all the way down will inhibit motion, as it is an OFF-ON-OFF-type switch.

7 – GO
- Used to send the GO command through the **RAYNOK SOFTWARE**
- The GO button is illuminated GREEN

8 – E-Stop Reset
- Used to reset the Emergency Stop System in conjunction with the E-Stop Reset Lockout Switch

9 – Emergency Stop Button
- Used to Stop the entire system in the case of an emergency

10– E-Stop Reset Lockout
- Locks out the local E-stop Reset button so that the resetting of the Emergency Stop System can be properly managed. Turns Off and On the E-stop System and resets the system in conjunction with the reset button

11 – Stop
- Used to send the STOP command through the **RAYNOK SOFTWARE**
- the STOP button is illuminated RED.

12 – M1 through M10
- User programmable Macro buttons
- Used to execute user selected commands in the **RAYNOK SOFTWARE**
- For details on how to program these buttons, with commands that the user can select, refer to your **RAYNOK SOFTWARE GUIDE**.

13 – Joystick (with enable button)
- Use the joystick to manually jog axes. Press the button on the top of the joystick to enable the jog function on selected axes before moving the joystick up or down, as giving a machine speed before enabling it will cause a jerky start to the machine. The LED above the joystick will light when the **RAYNOK** has received the enable command.

List of parts - SC5200 and SC5200+ Continued

The following diagrams below are the rear of the rack units. Note that not all ports may be connected internally. Consult the Raynok System Administrator for the system to find out which port are used.

CAUTION: ALTHOUGH THE CAT45 NETWORK PORTS ARE PHYSICALLY THE SAME PORTS AS THE SERIAL TRANSFER PORTS, DO NOT INTERCONNECT BETWEEN THESE PORTS!! DOING SO CAN CAUSE POTENTIAL DAMAGE TO THE INTERNAL NETWORK PORT OR TO THE MICRO (MACRO BUTTON AND JOYSTICK) PCB. RECOMMENDED PRACTICE IS TO USE A BLACK, SHIELDED NETWORK CABLE FOR THE SERIAL PORTS TO DIFFERENTIATE BETWEEN IT AND THE REGULAR CAT5 ETHERNET CABLES.

SC5200 and **SC5200+** Rear View Layout

1 – NET A FIELD MAIN 10 Base-T ports
- Connects the **SC5200** to the Network Uplink. All network ports EXCEPT the serial port can be attached to a laptop or external hub in the system. Do not connect 2 or more of these ports to the same point, as it will cause network traffic to stop.

2 - USB Ports
- Plug any USB device into these, such as a memory card stick, external hard drive, or a mouse

3 - SERIAL Port
- Plug a solid, 1' shielded network cable into this port. Ensure it is black or another colour and label it 'SERIAL CABLE' to differentiate it from other cables. This cable provides communication between the **SC5200** and the **SC5200+**.

4 - SERIAL Port
- See above. This is the input serial port of the **SC5200+**.

5 - 10 Base-T ports
- Additional network ports. It is recommended to use one of these ports with an ethercon connector included as part of the cable harness provided with the unit.

6 - E-STOP port
- Connect the E-Stop system 14PIN CPC connector to this port, included in the cable harness provided with the unit

7 - 120-240VAC FUSE
- The main inlet power fuse is located here

8 - 12VDC FUSE
- The PC power fuse is located here

9 - Power Inlet
- Plug a standard power cord into this socket to provide the console with 110VAC (or 220VAC, depending on the venue) power. The cable harness provided with the unit has this plug on it.

NOTES