Kramer Electronics, Ltd.

RC-SV Configuration Guide (Rev 4)

Software Version 2.1.2.69

Intended for Kramer Technical Personnel or external System Integrators. To check that you have the latest version, go to the DOWNLOADS section of our Web site at: http://www.kramerelectronics.com/support/downloads.asp

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1 Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront the video, audio, presentation, and broadcasting professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 1,000-plus different models now appear in 11 groups[1] that are clearly defined by function.

Congratulations on purchasing your Kramer Room Controller (RC) device, which is ideal for controlling A/V equipment and media room items.

The configuration software is part of the package and includes this *RC-SV Configuration Guide*[2].

1 GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Matrix Switchers; GROUP 3: Control Systems; GROUP 4: Format/Standards Converters; GROUP 5: Range Extenders and Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scan Converters and Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Accessories and Rack Adapters; GROUP 11: Sierra Products

2 Download up-to-date Kramer user manuals and guides from the Internet at this URL: http://www.kramerelectronics.com

1.1 Quick Start

To configure your Room Controller, follow these basic steps (see section 4):

Step 1: Install the software

VERIFY THAT THE ".NET FRAMEWORK" REVISION 2.0 SOFTWARE IS INSTALLED

1. Download the software from our Web site at: http://www.kramerelectronics.com
2. Extract the ZIP file
3. Install the software application
4. Install the Kramer USB driver

Step 2: Download and install the Drivers

THE ROOM CONTROLLER CAN ONLY IDENTIFY A PERIPHERAL DEVICE (FOR EXAMPLE, A KRAMER SWITCHER OR SCALER, A DVD AND A PROJECTOR)

1. Check, according to your list of peripheral devices, that you have all the required drivers
2. Download the required drivers to a folder (for example, C:\Media-Room-1\Peripheral Device Drivers)

Step 3: Create the Driver commands

YOU CAN WRITE TWO TYPES OF COMMANDS TO A CONNECTED PERIPHERAL DEVICE: SERIAL COMMANDS AND IR COMMANDS

1. In the Driver Manager window, select the required driver from the Vendor, Device and Revision areas
2. Create a command via the Serial Command area or the IR Commands area

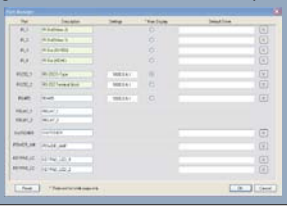
TO CREATE IR COMMANDS FOR A SELECTED DEVICE, YOU HAVE TO CONNECT THE RC DEVICE DIRECTLY TO YOUR PC VIA THE USB CONNECTOR AND USE THE IR REMOTE CONTROL TRANSMITTER OF THE PERIPHERAL DEVICE

Step 4: Port mapping

PORT MAPPING LETS YOU WRITE A DESCRIPTION AND ASSIGN A DEFAULT DRIVER FOR EACH PORT

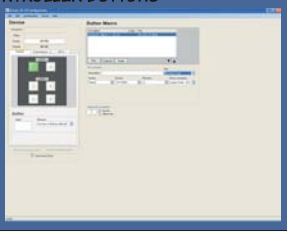
THE PORTS LISTED ARE SPECIFIC TO THE SELECTED ROOM CONTROLLER

Click the "Port Manager..." Item in the Configuration menu and define as required



Step 5: Button Configuration

USE THE RC-SV CONFIGURATION MAIN WINDOW TO CONFIGURE THE ROOM CONTROLLER BUTTONS



2 Overview

The RC-SV Configuration Software V2.1.2.69 is used to configure several types of room controllers[1].

Master Room controllers:

- **SV-551** in a SummitView™ Essentials Kit for Europe or the US (the **SV-551** is defined as the Master and the room controllers are the auxiliary devices)

Room Controllers that operate as auxiliary devices to a master room controller or as standalone devices:

- **RC-6x**[2] Room Controller for Europe or the US (the room controller is connected as a standalone unit and is defined as the master), see section 7.
- **RC-2, RC-2C**[3] and the **RC-2C**[3] combined with the **PL-18**
- **RC-52/RC-52N**
- **FC-29** for learning IR commands[4]

Section 3, section 4 and section 5 apply to all the room controllers listed in Table 1, unless noted otherwise

Since each Room Controller includes different ports[5], you will find that not all the available commands[6] apply to your Room Controller.

Table 1 defines the sections that apply to each Room Controller:

Table 1: Room Controller Commands Available

	The Commands [Section Number]									
Machine	**IR OUT [5.2.1]**	**RS-232 [5.2.1]**	**RS-485 [5.2.1]**	**LIGHT [5.2.2]**	**RELAY [5.2.3]**	**SWITCHER [5.2.4]**	**POWER AMP [5.2.5]**	**KEYPAD LCD [5.2.6]**	**BUTTON COLOR [5.2.7]**	**IGNORE BUTTON [5.2.8]**
SV-551[7]	**'es**	**Yes**	**Yes**		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
RC-6x[2]	**Yes**	**Yes**			**Yes**			**Yes**	**Yes**	**Yes**
RC-2	**Yes**									
RC-2C	**Yes**	**Yes**		**Yes**						
RC-2C + PL-18	**Yes**	**Yes**			**Yes**					
RC-52 / RC-52N	**Yes**	**Yes**		**Yes**						

1 For each machine, the installation process is described in the separate user manual. you can download the up-to-date Kramer user manuals and guides from the Internet at this URL: http://www.kramerelectronics.com

2 Refers to the Kramer RC-62 and RC-63 families (European and US versions)

3 The RC-2C (RC-2) firmware version must be at 1573 or higher

4 The RC-SV Configuration software is used only for the purpose of IR learning and not for configuration

5 For example, RC-2 includes only an RS-232 port, so the other commands are not available for this machine

6 Section 4.5.2 describes the different command areas (some of which may not be available for your Room Controller)

7 As Part of the Kramer SummitView™ Essentials Kit and Standard Kit European and US versions)

Before you operate the RC system:

- Import the drivers of the peripheral devices
- Configure your system[1]
- Write the configuration[1]
- Install the room controller system

2.1 System Requirements for the Kramer RC-SV Configuration Software

This section describes the system requirements for the Kramer RC Configuration software.

2.1.1 System Requirements

The system requirements include:

- 400MHz processor
- 128MB RAM
- At least 300MB free hard disk space
- Microsoft® Internet Explorer 6.0
- Network connection for configuring devices or USB
- Microsoft.NET® Framework 2.0 Service Pack 1, automatically installed (see section 4.1)

2.1.2 Operating Systems

Microsoft® Windows XP® is the recommended operating system[2].

3 Initial Planning

Carefully plan your RC system layout to ensure a smooth and easy configuration and installation (refer to the separate User Manuals[3]), by:

- Defining your requirements
- Listing the peripheral devices and room items that will be included in the system
- Planning the location of each device
- Planning the function of each device

Make a detailed list of the functions and commands required of the system devices, as illustrated in the partial list in Figure 1:

1 The SV-551 for the SummitView™ system and the RC-6x for the standalone setup

2 Windows NT does not support .NET 2.0.

3 Download up-to-date Kramer user manuals and guides from the Internet at this URL: http://www.kramerelectronics.com

Media room components list

Device	Functions	Commands Used
Blinds (relay)	Shut out External lighting	Open Close
Projector (RS-232)	Show presentation	Turn on Turn off Change inputs Focus
VCR (IR-1)	Play Video	Play Stop Pause Rewind

Figure 1: Media Room Components List

Once this list is finalized and approved, you can carry on with the configuration and installation process.

Note that the RC configuration and installation processes are independent of each other. You do not have to connect the RC device before starting the configuration

4 The RC Configuration Software

Install the software

The *Kramer RC-SV configuration* software lets you set a sequence of commands (the macro) and assign them to any of the buttons on the RC device.

The *Kramer RC-SV configuration* software lets you:

- Create your own device drivers manually or via the IR learner feature
- Write, modify or delete commands
- Change the order of commands within the macro
- Set delay times between commands in a macro
- Set the button lighting and color
- Change text on the LCD displays on the RC units
- Save multiple sets of RC device configurations

The RC buttons can be configured prior to installation

The following sections describe how to:

- Install the software (see section 4.1)
- Download the device drivers (see section 4.2)
- Create Serial and IR commands (see section 4.3)
- Map the ports (see section 4.4)
- Use the Kramer RC Configuration main window (see section 4.5)

4.1 Installing the Software

Prior to using the *Kramer RC-SV configuration* software, make sure that the ".NET Framework" Revision 2.0 software is installed on your PC. If it is not, you need to install it:

- If you have a fast Internet connection, this software is automatically installed during the installation of the *Kramer RC-SV configuration* software
- If you do not have a fast Internet connection, insert the CD-ROM into the CD-ROM drive, double click the *dotnetfx.exe*[1] file and follow the on-screen instructions[2]

Before getting started with your *Kramer RC-SV configuration*, you must download the software and then install it. You can download it[3] from the Internet. To do so:

1. Go to our Web site at http://www.kramerelectronics.com and download the file: "*Kramer RC-SV Config.zip*" from the DOWNLOADS section.
2. Extract the file "*Kramer RC-SV Config.zip*" package, which includes the *Kramer RC configuration 2* application setup and the Kramer device drivers[4], to a folder (for example, C:\Program Files\Kramer RC Configuration).
3. Install the *Kramer RC-SV Configuration* application.
   When running Setup, you are prompted to set the working directory (see Figure 2):

1 File names are liable to change

2 Installation may take about 15 minutes

3 File names are liable to change from time to time

4 Mostly for matrix switchers and switchers

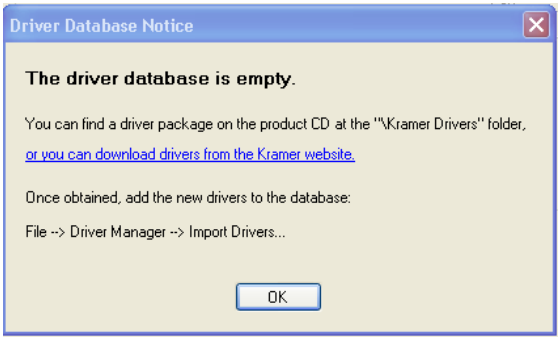


Figure 2: Driver Database Notice

4. Click OK.
   The following window appears (see Figure 3):

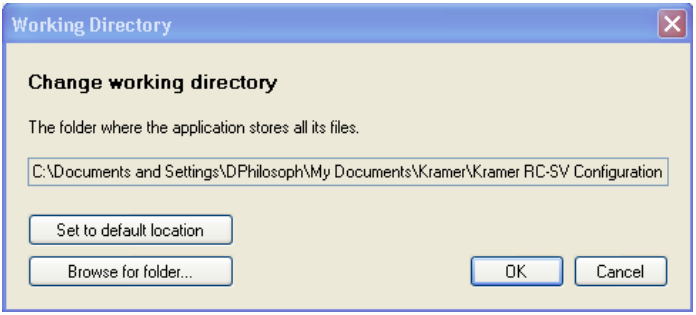


Figure 3: Setting a Working Directory

5. Select or create a new working directory[1] (see Figure 4).

1 The working directory will keep the information that is essential for operating the software. This information will remain unchanged while upgrading the software

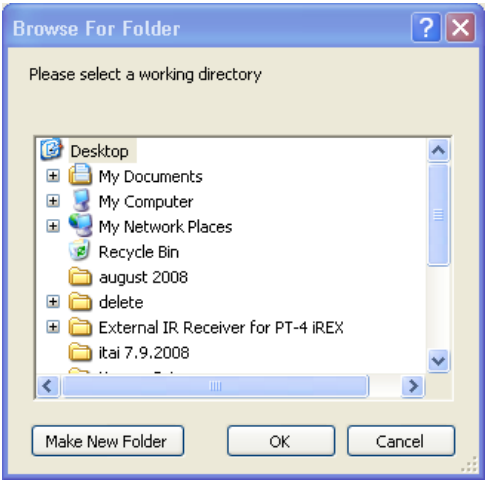


Figure 4: Change Working Directory Window

6. Continue to run the setup according to the installation instructions.

4.2 Downloading and Installing the Drivers

Download and Install the Drivers

The RC system peripheral devices have device drivers that let them communicate with computers. The device driver needs to be installed so that the computer can recognize it and control it. The *Kramer RC-SV Configuration* software uses driver commands to control these peripheral devices.

4.2.1 Download the Drivers

Check—according to your list of peripheral devices (see the example in Figure 1) —that you have all the required drivers:

- Kramer machines have drivers that are provided within the package
- Other peripheral device drivers that are included in the package

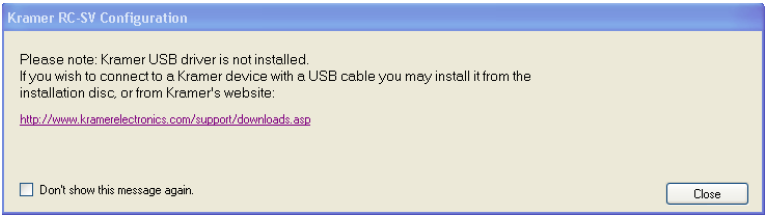
Download the required drivers to a folder (for example, C:\Media-Room-1\Peripheral Device Drivers).

4.2.2 Install the Drivers

The peripheral device drivers are installed via the Driver Manager window, defined in Figure 8 and Table 2:

To access the Driver Manager window:

1. Open the *Kramer RC-SV Configuration* program.
2. The following window appears:



   Install the Kramer USB driver from the installation disc or from our Web site at http://www.kramerelectronics.com.

3. From the File menu, click Driver Manager.
   The Driver Manager window appears (see Figure 5).

When open, the Driver Manager window lets you:

- Import one or more drivers (Import Drivers…, see Figure 6), or export an existing driver (Export Driver…, see Figure 7)
- Add a new device driver
- Rename or delete devices, revisions and commands, as defined in Table 2
- Set the driver revision date
- Write new commands

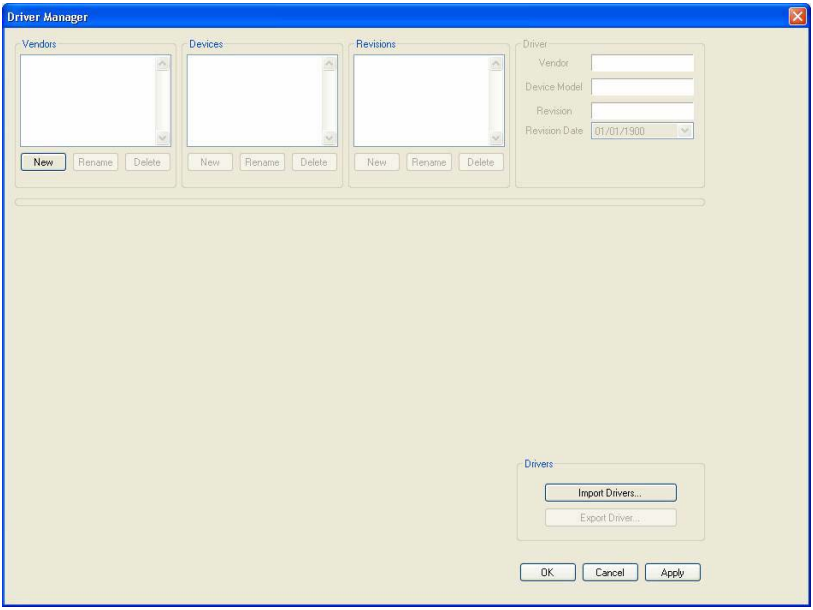


Figure 5: The Driver Manager Window Prior to Installing the Drivers

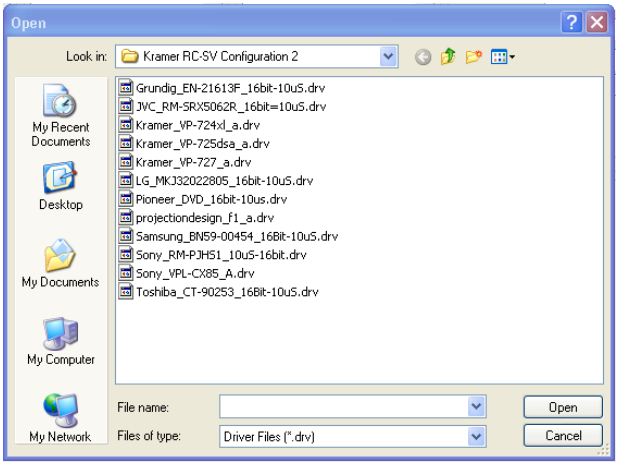


Figure 6: Importing a Kramer Driver File

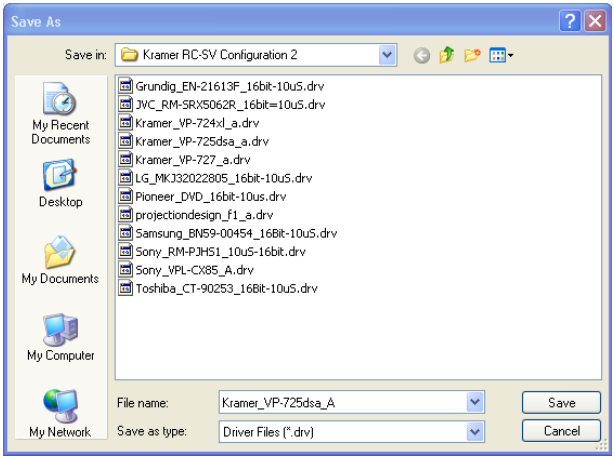


Figure 7: Exporting a Kramer Driver File

Figure 8 and Table 2 define the Driver Manager window:

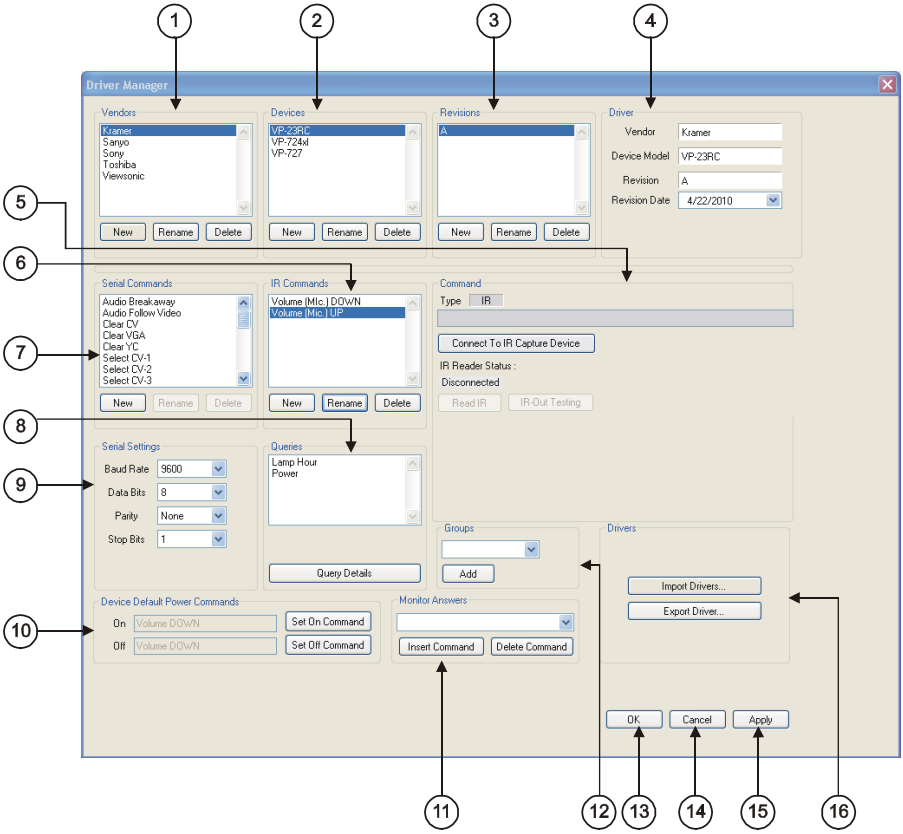


Figure 8: The Driver Manager Window

Table 2: Driver Manager Window Features

#	Feature	Function
1	*Vendors* Area	Lists the downloaded vendors New: press to enter a new vendor name manually Rename: press to rename the vendor name Delete: erases the selected vendor
2	*Devices* Area	Lists the names of devices of a selected vendor (in the Vendors area) New: press to enter a new device name manually Rename: press to rename the device name Delete: press to erase the selected device
3	*Revisions* Area	Lists the revision of a selected device New: press to enter a new revision manually Rename: press to rename the revision number Delete: press to erase the selected revision
4	*Driver* Area	Displays the selected *Vendor*, *Device Model* and *Revision*. Lets you set the *Revision Date*
5	*Command* Area	Displays the command type (see Figure 10 and Figure 13)
6	*IR Commands* Area	Lists the IR command names for a specific device New: press to enter a new command name manually Rename: press to rename the Command editing tab Delete: erases the selected command
7	*Serial Commands* Area	Lists the serial command names for a specific device New: press to enter a new command name manually Rename: press to rename the Command editing tab Delete: press to erase the selected command
8	Queries	N/A in this version
9	*Serial Settings* Area	Select the serial settings for the device: the *Baud Rate*, the *Data Bits*, the *Parity* and the *Stop Bits*
10	*Device Default Power Commands*	N/A in this version
11	*Monitor Answers*	N/A in this version
12	*Groups*	N/A in this version
13	*OK* Button	Apply changes and close window
14	*Cancel* Button	Close window without applying changes
15	*Apply* Button	Apply changes, but do not close window
16	*Drivers* Area	Import Drivers…: press to import one or more driver files Export Driver…: press to export a driver file

4.3 Creating a Driver Command

Create serial and IR commands

Driver commands are written via the connectors specific to each of the machines, as defined in Table 3:

Table 3: Connectors Available for Driver Commands

Machine Name	Connectors Available	Connection Method
SV-551	ETH, USB	Ethernet, USB
RC-6x	USB	USB
RC-2	RS-232	Serial
RC-2C	RS-232	Serial
FC-29	USB	USB
RC-52	USB	USB

You can write two types of commands to a connected device (for example, a DVD, or a Kramer machine):

- Serial commands (see section 4.3.1)
- IR commands (see section 4.3.2)

4.3.1 Creating a Serial Command

To write the serial commands for the selected device, click the New button in the Serial Commands area. The New Serial Command window appears. Type the new command name:

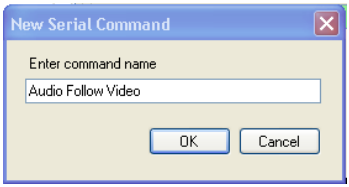


Figure 9: New Serial Command Window

A Serial Command type area appears, as illustrated in Figure 10.

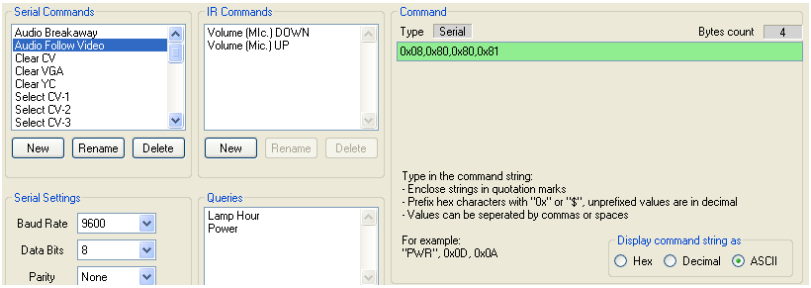


Figure 10: Writing the Serial Commands

The serial commands created can be sent via RS-232 and RS-485 ports.

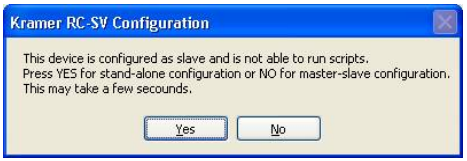
4.3.2 Creating an IR Command

To create IR commands for a selected device, connect the **FC-29** or RC device[1] directly[2] to your PC via the USB connector and use the remote control transmitter[3] to learn its IR commands.

When creating IR commands, you have to connect the device directly to the PC via the USB connector. When a **RC-6x** (in the slave configuration) is connected, although it is directly connected, it should remain in the auxiliary device state because if it is defined as master, it will not function when reconnected to the **SV-551**.

To keep the **RC-6x** in the auxiliary device configuration:

1. Connect the **RC-6x** directly to the USB connector. The following window appears:



2. Click NO to keep the device in the auxiliary device configuration.

If you have a problem connecting to the USB port, make sure that you have installed the Kramer USB driver (see section 4.2.2).

1 That has IR learning capability, as defined in Table 3

2 Whether it is defined as an auxiliary device or a standalone Master

3 Of the machine from which you want to learn the IR commands. For example, use the DVD control transmitter to write the DVD commands to the driver manager

To write a new IR command to the RC device:

1. Click the New button in the IR commands area to type the new command name. The following window appears:

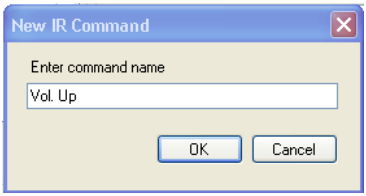


Figure 11: New IR Command Window

2. In the Command area, click the Connect to IR Capture Device button (see Figure 13), select the port and click OK:

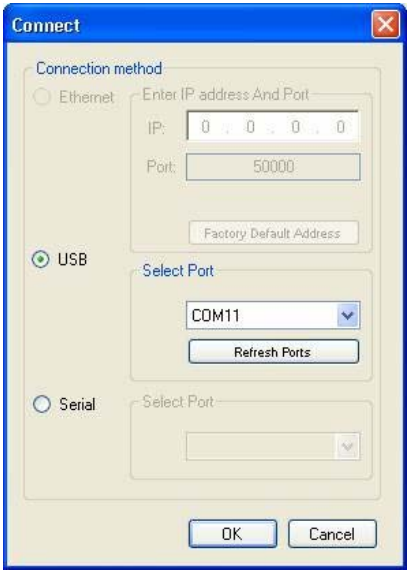


Figure 12: Connect to IR Capture Device Window

3. Click the Read IR button to read the command.
   The command area displays the following message: "Ready for reading IR command. Please send IR command to the device".
4. Press the appropriate button on the remote control transmitter.
   The command area displays the following message: "IR command reading".
   The IR command appears, as illustrated in Figure 13:

Figure 13: IR Command Area Window

You can test the IR command by connecting the RC unit IR terminal block connectors to the device via the IR emitter, and then clicking the IR-Out Testing button.

Figure 14 shows how to connect the IR emitter[1]. The white striped side connects to IR OUT, the black side connects to the Ground, and the LED Emitter Shell is affixed to the IR sensor window with the adhesive layer.

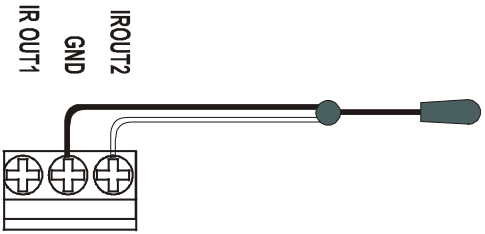


Figure 14: IR Emitter Wiring

NOTE: The dual IR emitter emits a weaker IR signal that may not be detected by some devices

1 Using the Kramer 3.5mm to IR Emitter Control Cable (C-A35/IRE-10)

4.4 Port Mapping

Write a description and assign the Default Driver for each port

The Port Manager window defines the ports on the Room Controller (see section 2) and lets you write a description and assign a default driver for each port. For example, if a DVD is connected to the **SV-551** via the IR_2 port, you can change the description next to that port to "Sony DVD" and assign the Sony DVD driver to this port.

In this way, the Sony driver will be associated with the Sony DVD port[1] when creating a command sequence as illustrated in Figure 15, making it easier to select the commands (also see section 4.5.3). The same applies to all the ports in the Port Manager window.

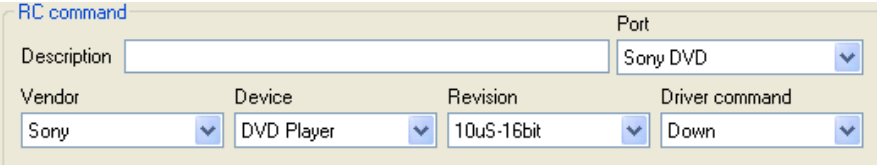


Figure 15: The Sony DVD Player in the RC Command Area

For the RS-232 and RS-485 ports on the unit, the Port Manager window also lets you set the baud rate, data bits, parity and stop bits. These definitions will override the definitions written in the driver manager.

To open the Port Manager window, click the "Port Manager…" item in the Configuration menu (see section 6.3). Figure 16 shows the Port Manager window for the Kramer **SV-551** *SummitView™ Processor / Switcher*[2].

1 Although you can assign it with a different Vendor or Device

2 Figure 60 shows the Port Manager window for the RC-6x standalone setup

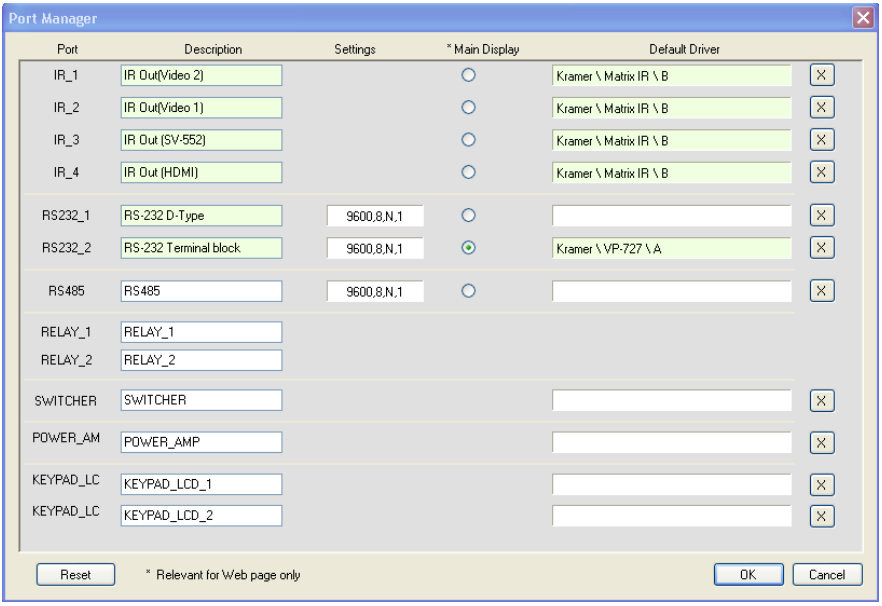


Figure 16: The Port Manager Window

Table 4: The Port Manager Window Features

The Item	Description
Port	Lists the ports available for the selected machine
Description	Type a description of the port
Settings	For serial ports, press the white area to open the serial Settings window and define the baud rate and parity For Ethernet ports, press the white area to open the Ethernet Settings window and define the IP address and TCP port
Main Display	N/A in this version
Default Driver	Press the white area to open the Drivers Tree window and select the default driver for this port
	Press to clear the Default Driver data
Reset	Press to reset to default definitions
OK	Click to approve and exit window
Cancel	Click to exit window

4.5 The Kramer RC-SV Configuration Main Window

After importing the drivers and defining the ports, use the Kramer RC Configuration main window to assign a sequence of commands (the macro) for each RC button. Figure 17 illustrates the *Kramer RC-SV Configuration* main window[1], and Table 5 defines it:

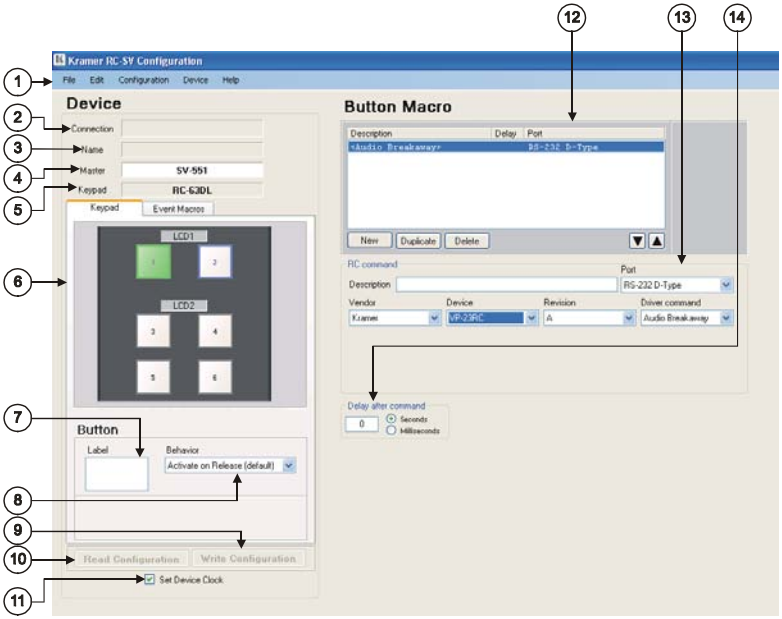


Figure 17: The Kramer RC Configuration Main Window

Table 5: Kramer RC Configuration Window Features

#	Feature	Function
1	Menu Bar	Menus are described in section 5
***Device* Area**		
2	*Connection* Box	Displays the connection properties with the device (IP address or com port)[2]
3	*Name* Box	Displays the name of the specific device[2]
4	*Master* Box	Displays the Master device to which the auxiliary device keypad is connected. Change the master device type and the auxiliary device Keypad via the File menu (see section 6.1)
5	*Keypad* Box	Select the device type[3]
6	*Keypad* Tab	Shows the layout of the RC buttons according to the device type

1 The Window appearance is slightly different for each machine (for example, the keypad is specific to the machine selected)

2 The name and IP number are initially set by the Properties dialog box (see section 7.2)

3 The device type can be selected only if there is no device connected to the computer. If a device is connected, the device type is selected automatically

#	Feature		Function	
			selected, with the labels on the button. Click to Select a button to configure, modify, read, or delete its macro. When the button is: • Blue rimmed, it is assigned a command sequence • Green, it is selected • Gray, it is not assigned a macro	
	Event Macros Tab		A series of commands to be executed upon a scheduling time (see Figure 19)	
7	*Button* Area[1]	*Label* Text Box	Select a button and type the required button label	
8		*Behavior* Drop-down Box	Assign the button response to press and release actions	
			Button Definition	Behavior
			Activate on Release (default)	The macro is executed upon releasing the button
			Activate while Pressed	The macro is activated and repeated for as long as the button is pressed
			Toggle 1-2-3-4	Cycling macro behavior: The button can be assigned with up to 4 different macros. Each time it is pressed, the next macro in the set will be activated in a cyclic fashion.[2]
#	Feature		Function	
9	*Write Configuration* Button[3]		Press to write the configuration of all the buttons to the device	
10	*Read Configuration* Button		Press to read the configuration of all the buttons from the PC to the device	
11	*Set Device Clock* Check Box		Check to set the device clock to that of the PC	
***Button Macro* Area**				
12	Button Macro Display Box		Displays the macro RC commands' Description, Delay and Port in sequence. Select an RC command to duplicate, delete, or change its position in the sequence	
	New Command Button		Click to add a new command to the Button Macro display box[4] (see section 4.5.2)	
	Duplicate Command Button		Duplicate a command in the Button Macro display box	
	Delete Command Button		Delete a command from the Button Macro display box	
	Button		Move up the selected command	
	Button		Move down the selected command	
13	*RC command* Area (see section 4.5.3)		Appears different for different ports and includes the following features of the command selected in the Button Macro display box:	
	Description Text Box		Optional descriptive text for the command	
	Port Drop-down Box		Displays the port associated with the RC command: Select a port when modifying or writing a new RC command	
14	*Delay after command* Text Box[5]		Set a delay time following the command[6]	

1 The Button area appears only after selecting a button in the Front Panel tab

2 The number of toggle states can be determined (from 1 to 4). The selected number of toggle states appears above the Button Macro area (see Figure 18)

3 This button is enabled only when a device is connected to the PC. Otherwise it is disabled

4 The button macro display box displays <No Description> under Description and None under Port

5 Shows after checking this option in the configuration menu

6 In seconds or milliseconds, via check box

Figure 18 shows the Toggle button behavior:

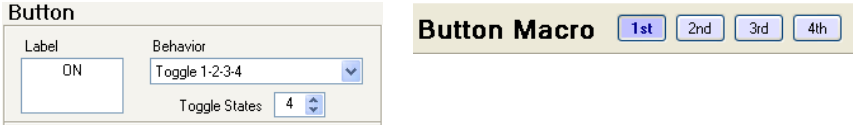


Figure 18: Using the Toggle 1-2-3-4 Behavior

4.5.1 The Tab Area

The tab area includes different tabs, depending on the machine type:

- The keypad tab, illustrated in Figure 17 and defined in Table 5, lets you assign macros to the buttons (see section 5)
- The Event Macros tab, illustrated in Figure 19, lets you add commands to several built in macro events[1], and create up to five additional custom macros that are activated upon the scheduling time (see section 4.5.2)

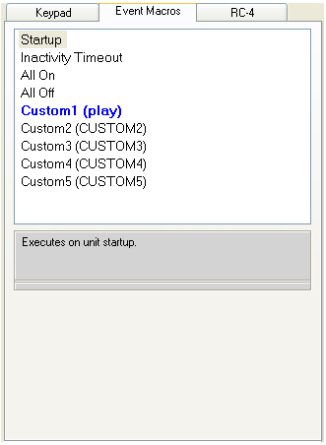


Figure 19: Event Macros Tab

1 Startup, Inactivity Timeout, All On and All Off that are activated automatically, and also several custom event macros

4.5.2 Scheduling

You can schedule the custom macros to be activated at a predefined time, as illustrated in Figure 20:

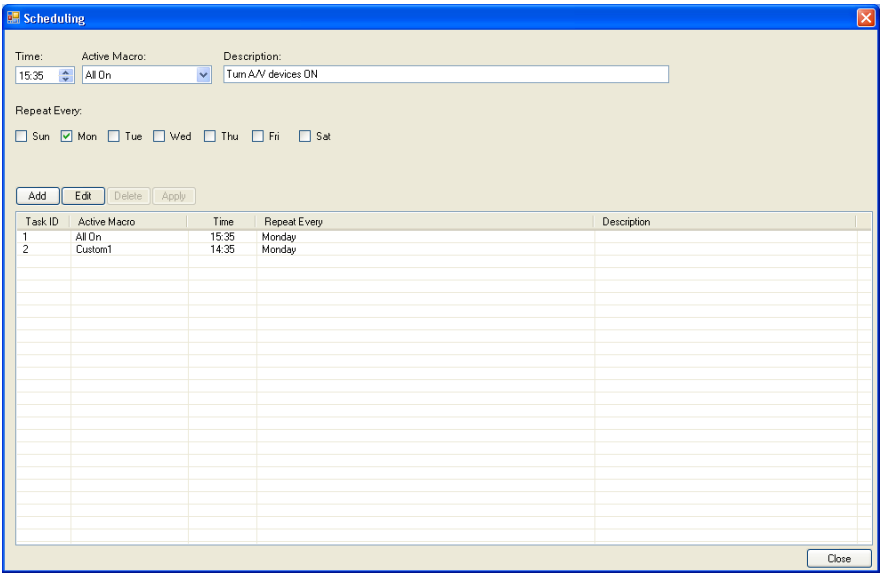


Figure 20: The Scheduling Window

4.5.3 The RC Command Area

The RC Command area appears different for the various types of ports.

4.5.3.1 The IR, RS-232 and RS-485 Ports RC Command Area

Figure 21 and Table 6 define the IR, RS-232 and RS-485 Port Command area:

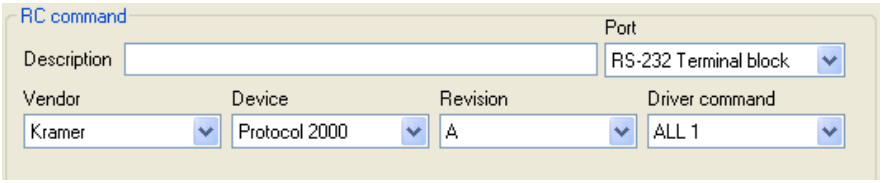


Figure 21: IR, RS-232 and RS-485 Port RC Command Area

Table 6: IR, RS-232 and RS-485 Port Command Area Features

Drop-down Box	Description
Vendor Drop-down Box	Displays the current vendor. Select the vendor when writing a new RC command or modifying a selected command
Device Drop-down Box	Displays the device driver name. Select the device driver when modifying or writing a new RC command
Revision Drop-down Box	Displays the device driver revision. Select a revision when modifying or writing a new RC command
Driver command Drop-down Box	Displays the current driver command. Select a driver command when writing a new command or modifying a selected command

4.5.3.2 The LIGHT RC Command Area

The LIGHT Command lets you set the button lighting behavior (see Figure 22).

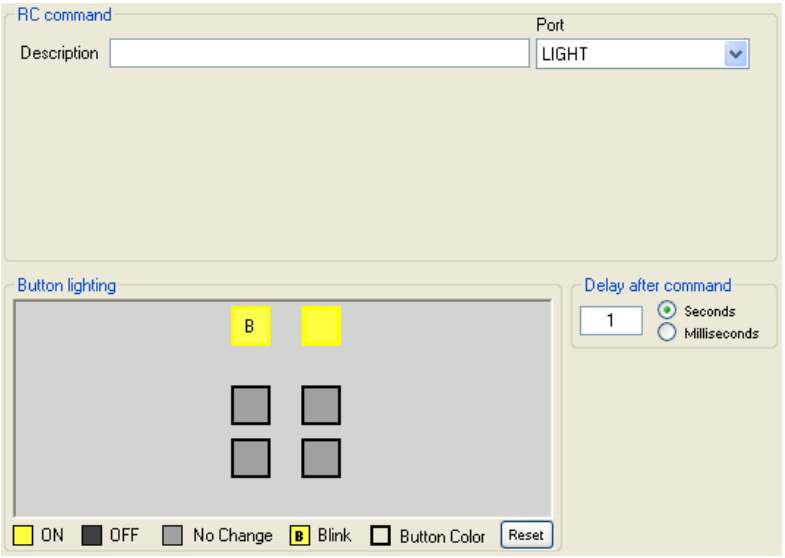


Figure 22: LIGHT RC Command Area

4.5.3.3 The Relay Port RC Command Area

The relay RC Command Area includes the Relay command drop-down box (Close, Open):

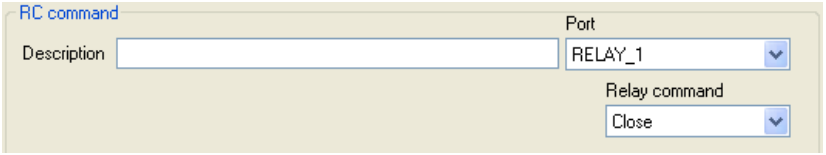


Figure 23: Relay Port RC Command Area

4.5.3.4 The Switcher Port RC Command Area

The switcher port command area includes the **SV-551** Switcher command drop-down box:

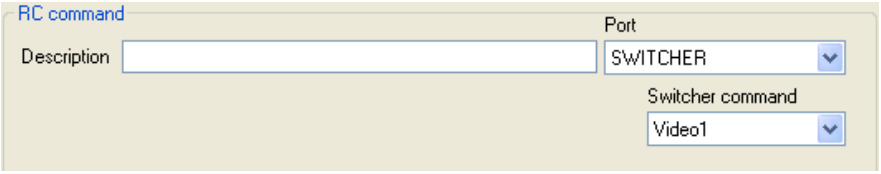


Figure 24: Switcher Port RC Command Area

4.5.3.5 The Keypad LCD Port RC Command Area

The keypad LCD port RC Command area includes the LCD command drop-down box, which lets you type any text (up to 8 characters) to the LCD display on the control device:

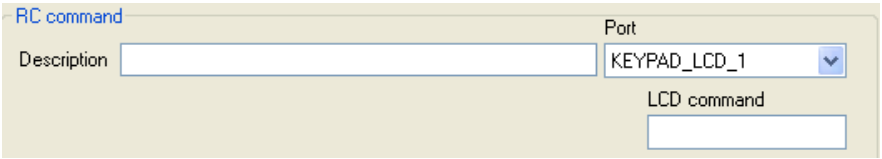


Figure 25: Switcher Port RC Command Area

4.5.3.6 The Button Color Port RC Command Area

The button color port RC Command area lets you select the button color and state (On Off, Fast Blink and Slow Blink) for each button:

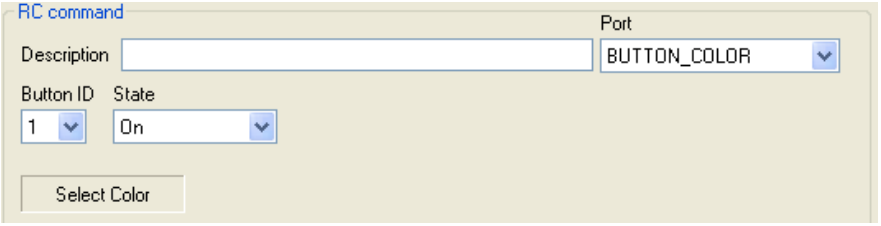


Figure 26: Button Color Port RC Command Area

Figure 27: Color Selection Window

4.5.3.7 The Ignore Button Port RC Command Area

The Ignore/ Unignore command lets you control whether a press of a button will issue the associated sequence of commands for that button. For example, inserting "IGNORE button 4" into another button's command macro, will actually disable button 4 until the "UNIGNORE button 4" command will be issued from another command macro.

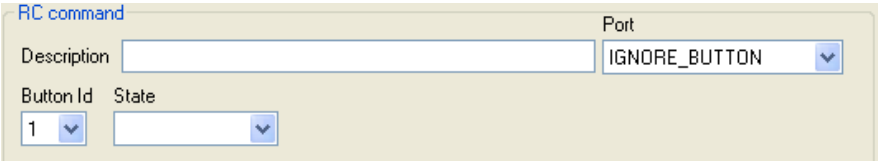


Figure 28: Ignore Button Port RC Command Area

5 Creating a Macro

Configure the RC buttons

A macro includes a sequence of commands assigned to:

- A selected button on the RC device
- An Event Macro

To create a sequence of commands:

1. Press a button in the Keypad[1] tab to select the button to which you want to write the macro. The button turns green:

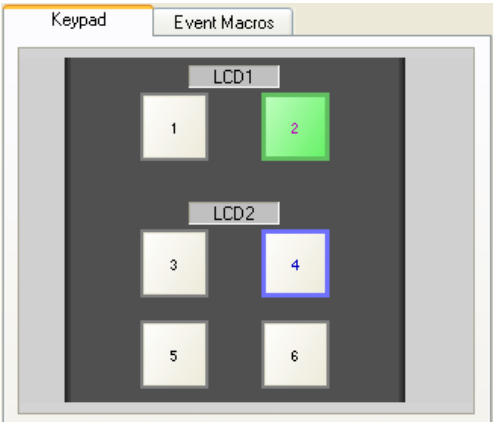


Figure 29: Selecting a Button to Write a Macro

2. Click the New button in the Button Macro area:

1 Or the Event Macros tab, or the RC-4 tab

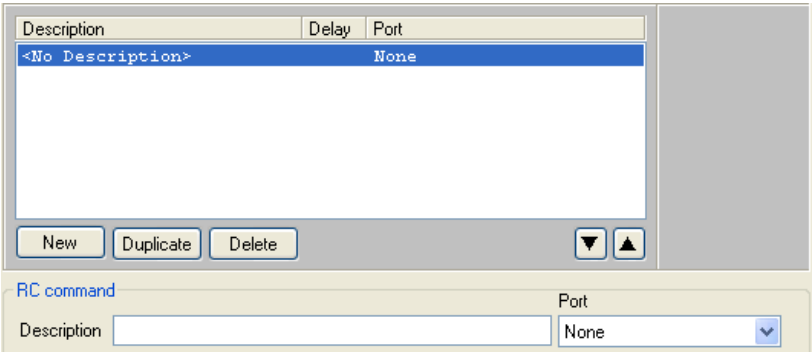


Figure 30: Creating a New Command

3. Select a port[1] from the drop-down box (for example, the RS-232 terminal block). The default driver appears.
4. Select a command from the Driver command area and write its description. Click the up or down arrow to save the command to the macro:

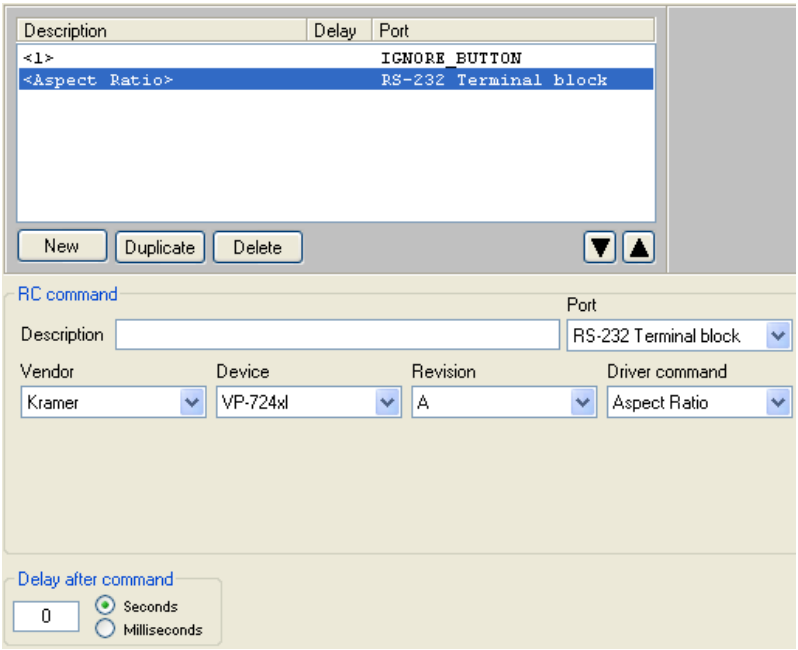


Figure 31: Selecting the Port

1 This is an example. The RC command area appears different for different ports, as described in section 5.2

5. Repeat this process to add new commands. Click Duplicate to duplicate the command and delete a command by clicking the Delete button.
6. If required, set a delay time after the command.

5.1 Labeling the Buttons

For your convenience, you can label the buttons in the Keypad tab area, as illustrated in the example in Figure 32.

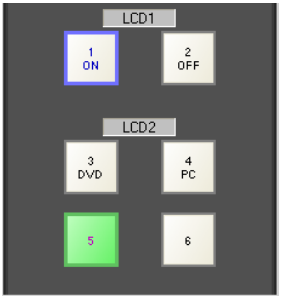


Figure 32: Labeling the RC Buttons

To label a button:

1. Open the Kramer RC Configuration main window.
2. Select a button.
3. Type the button text in the Label area:

Figure 33: Typing the Label

5.2 Creating a Driver Command

The driver commands for each port are slightly different. The following sections describe how to write a new command for the different ports.

Each machine has a different set of commands, as defined in Table 1

5.2.1 An RS-232 Command – Switch Input to Output

To add a driver command to a button (for example, to switch the DVD player to the projector), do the following:

1. Open the Port drop-down box and select the RS-232 Terminal Block (or IR OUT or RS-485) port[1] from the list[2].
   If a driver was assigned in the port mapping stage, the default driver associated with this port appears.
2. In the RC command area, write the command description (for example, SWITCH).
3. Select the Driver command (for example, "COMP!") from the drop-down box[2].

Figure 34 illustrates the RS-232 RC Command area as it appears after writing the driver command:

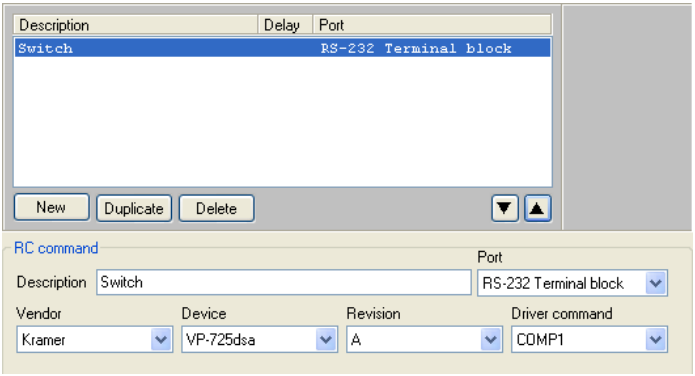


Figure 34: Switch to COMP1 Command

5.2.2 A LIGHT Command – Select the Button behavior

To change the color of a button, do the following:

1. Select the LIGHT Port.
2. In the RC command area, write the command description (for example, Button blinks).
3. In the Button lighting area, click the button for which you are writing this command until it is in the Blink state.

Figure 35 illustrates the RC Command area as it appears after writing the command and the button color selection list:

1 Once the port is selected, the default driver details appear

2 If the required data does not exist, you can install it via the Manager Driver window (see section 4.1)

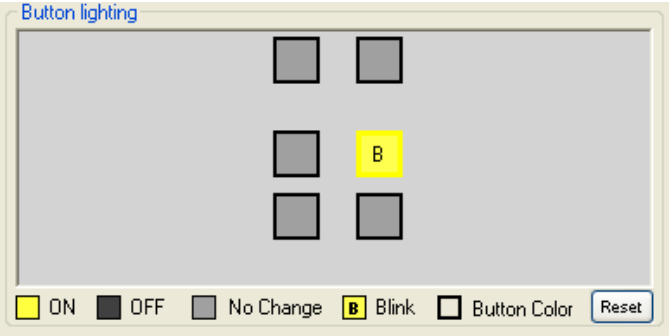


Figure 35: LIGHT Command

5.2.3 A Relay Command – Turn Lights ON

To write a relay command on an RC button (for example, turn the lights on), do the following:

1. Select the Relay Port (for example, RELAY_1).
2. In the RC command area, write the command description (for example, Lights ON).
3. Select the relay command (for example, Close).

Figure 36 illustrates the RC Command area as it appears after writing the command:

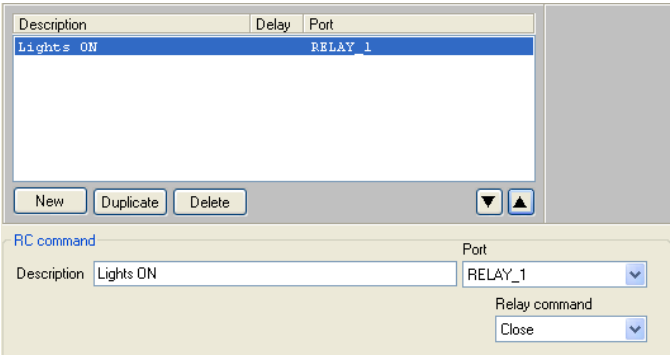


Figure 36: Lights ON RC Command

5.2.4 A Switcher Command

Use the Switcher command to select an input connected to the Kramer **SV-551** (Video 1, Video 2, PC 1, PC2 and PC 3). The switcher command applies to the master-slave configuration only.

To write a switcher command on an RC button, do the following:

1. Select the SWITCHER Port.
2. In the RC command area, write the command description (for example, Select).
3. Select the switcher command (for example, Video 1).

Figure 37 illustrates the RC Command area as it appears after writing the command:

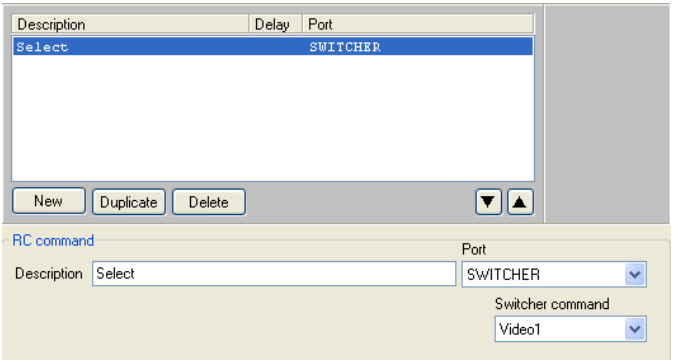


Figure 37: Switcher RC Command

5.2.5 A Power Amplifier Command

To write a power amplifier command[1] on an RC button, do the following:

1. Select the POWER_AMP Port.
2. In the RC command area, write the command description (for example, High Volume).
3. Select the power amplifier command (for example, Volume set).
4. Move the sliding switch to the desired volume (for example, 12dB).

Figure 37 illustrates the RC Command area as it appears after writing the command:

1 For the Master-Slave configuration only

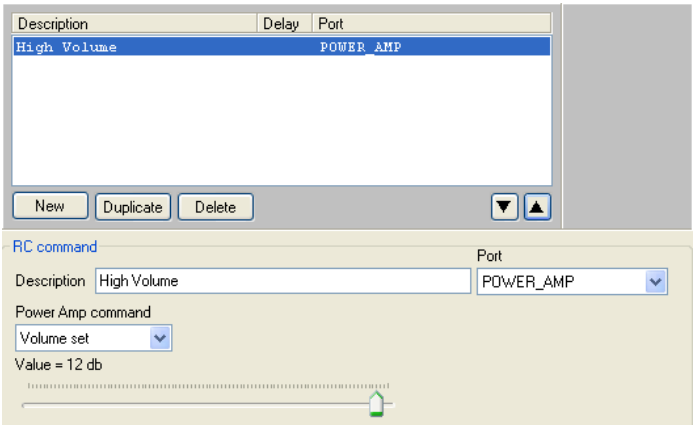


Figure 38: High Volume RC Command

5.2.6 An LCD Keypad Command

The LCD Keypad command lets you type-in the desired text to the LCD displays (LCD 1 and LCD 2).

To write an LCD keypad command on an RC button, do the following:

1. Select the KEYPAD_LCD Port (1 or 2).
2. In the RC command area, write the command description (for example, Switcher).
3. Type-in the desired text.

Figure 37 illustrates the RC Command area as it appears after writing the command:

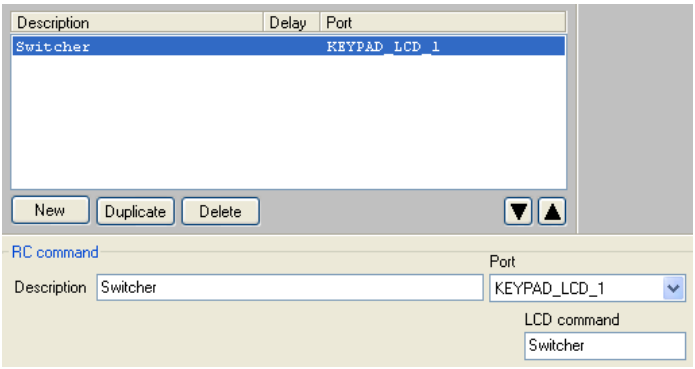


Figure 39: Keypad LCD RC Command

5.2.7 Setting the Button State and Color

To write a Button Color command on an RC button, do the following:

1. Select the BUTTON_COLOR Port.
2. In the RC command area, write the command description (for example, Change Color).
3. Select the Button ID (from 1 to 6) to which this command refers[1].
4. Set the state of the button (On, Off, Fast Blink, Slow Blink), for example, On.
5. Set the Button Color (see Figure 41).

Figure 40 illustrates the RC Command area as it appears after writing the command:

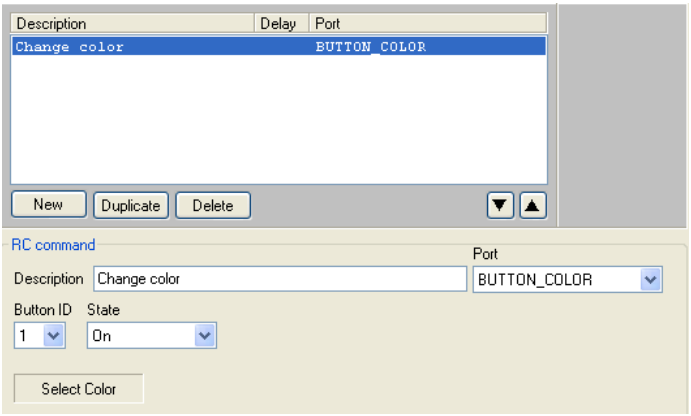


Figure 40: Change Color RC Command

1 For example, the command is written to button 1 but refers to an action taken for button 4

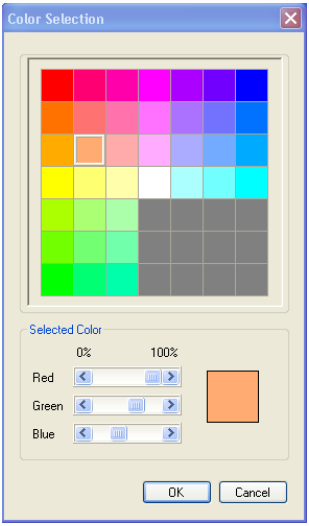


Figure 41: Select Button Color

5.2.8 The Ignore Button Command

To write a Button Ignore command (see Figure 42) on an RC button (for example, button 1), do the following:

1. Select the IGNORE BUTTON Port.
2. In the RC command area, write the command description (for example, Ignore Button 4).
3. Select the Button ID (from 1 to 6) to which this command refers[1], for example button 4.
4. Set the state of the button (Ignore, Unignore), for example, Ignore.

Figure 42 illustrates the RC Command area as it appears after writing the command to button 1:

1 For example, the command is written to button 1 but refers to an action taken for button 4

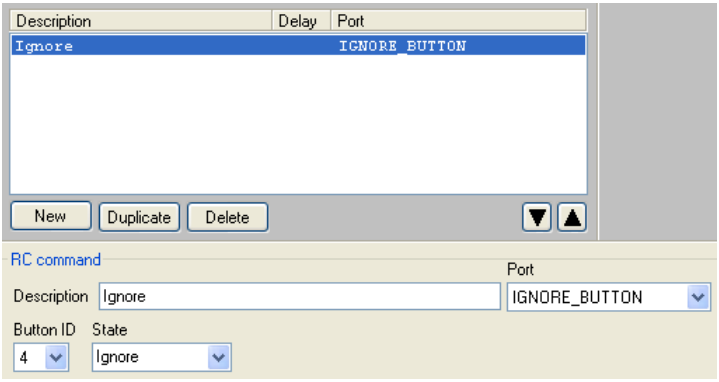


Figure 42: Ignore RC Command

6 The Kramer RC Configuration Menus

This section describes the Kramer RC Configuration menus.

6.1 The File Menu

Figure 43 illustrates the File menu and Table 7 defines it:

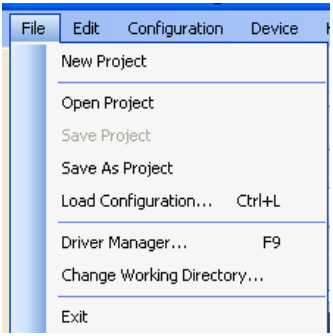


Figure 43: The File Menu

Table 7: File Menu Features

Menu Command	Function
New Project	Click to create a new configuration setup, see Figure 44[1].
Open Project	Open an existing configuration setup
Save Project	Click to save the current configuration (does not save the relevant driver commands).
Save as Project	Save the configuration under a different name
Load Configuration…	Click to load a saved configuration.
Driver Manager …	Click to open the Driver Manager window (see section 4.2.2).
Change Working Directory…	Click to set the new working directory[2].
Exit	Click to exit the program.

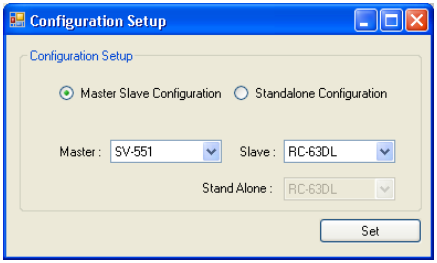


Figure 44: The Configuration Setup Window

1 This will discard the active configuration

2 The working directory can be changed at any time

6.2 The Edit Menu

Figure 45 illustrates the Edit menu and Table 8 defines it:

Figure 45: The Edit Menu

Table 8: Edit Menu Features

Menu Command	Function
Copy Macro	Click to copy a button macro command sequence.
Paste Macro	Click to paste a button macro command sequence.
Clear Macro	Click to clear the Macro-commands sequence box.
Clear Button Labels	Click to clear all the button labels.

6.3 The Configuration Menu

Figure 46 illustrates the Configuration menu and Table 9 defines it:

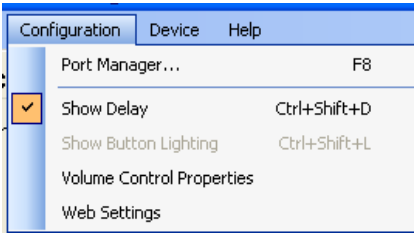


Figure 46: The Configuration Menu

Table 9: Configuration Menu Features

Menu Command	Function
Port Manager	Lists the ports names, description, settings and drivers (see section 4.4).
Show Delay	Check to show in RC main configuration window.
Show Button Lighting	Check to show in RC main configuration window.
Volume Control Properties	Set the volume control type[1]
Web Settings	N/A in this version

1 Applies only to the SV-551

6.4 The Device Menu

Figure 47 illustrates the Device menu and Table 10 defines it:

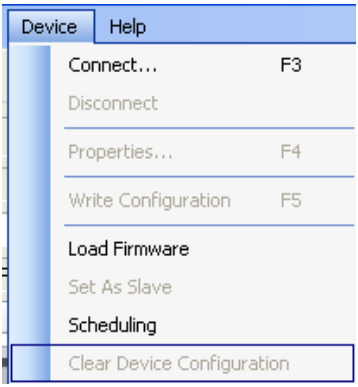


Figure 47: The Device Menu

Table 10: Device Menu Features

Menu Command	Function
Connect…	Click to connect to a device via an IP number or serial port.
Disconnect	Click to disconnect the device
Properties[1]	Click to show the device properties dialog box.
Write Configuration[1]	Writes the configuration to the device.
Load Firmware	Load file for firmware upgrade.
Set As Slave	Enabled when the RC is connected as a standalone unit. Lets you set the device as a slave. The RC controller will automatically disconnect
Scheduling	Set the Macro Events schedule
Clear Device Configuration	Removes the configuration from the device

6.4.1 The Connect Command

To connect a device, do the following:

1. Open the Device menu and click Connect.
   The Connect window appears (see Figure 48).
2. Select the Connection method and type the IP number of the desired device (or port).

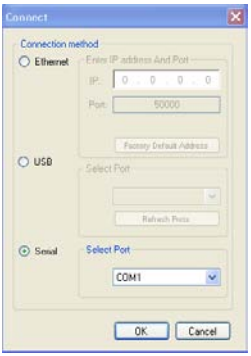


Table 11: Connect Dialog Box

Feature	Function
Connection Method Area	Check *Ethernet* to select the connection to the device via the Ethernet, USB or Serial port.
Ethernet Area	*IP:* Type the IP number of the device you want to connect to. *Port:* shows the port number. *Factory Default Address* Button: Press to reset the IP number to its default value.
USB Area	*Port:* select the communication USB port. *Refresh Ports*: click to check if there are ports ready to connect on the Kramer device.

1 Active only when a device is connected

Figure 48: Device Selection Dialog Box	Serial	Select Port: select the communication port

6.4.2 The Device Properties Dialog Box

To connect a device, open the Device menu and click Properties. The Device Properties window Appears (see Figure 49). Figure 57 shows the Device Properties window in the standalone setup.

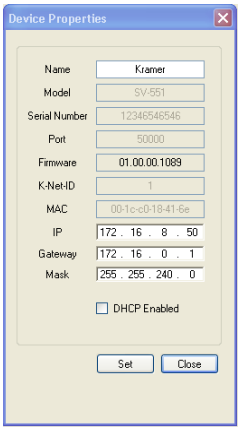


Figure 49: Device Properties Window

Table 12: Connect Dialog Box

Feature	Function
Name, IP, Gateway, Mask	If required, change information.
Model, Serial number, Port, Firmware, K-Net-ID, MAC,	Displays information.
DHCP[1] Enabled	Check box to enable operation in the DHCP mode. When in the DHCP mode, you can only change the name of the device. This process may take several minutes and will cause an automatic restart on the device.

6.5 The Help Menu

Figure 50 illustrates the Help menu and Table 13 defines it:

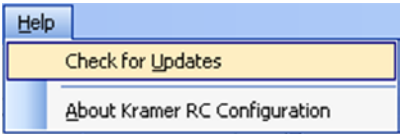


Figure 50: The Help Menu

Table 13: Help Menu Features

Menu Command	Function
Check for updates	Search the Kramer Electronics Web site for software updates.
About Kramer RC Configuration	Shows the current software version.

1 Dynamic Host Configuration Protocol: Allows the network administrator to distribute IP addresses from a central point and automatically send a new IP address when an Ethernet point is plugged into a different network location

6.6 Load Firmware

To load new firmware:

1. From the Device menu select Load Firmware.
   The Load Firmware Upgrade window appears:

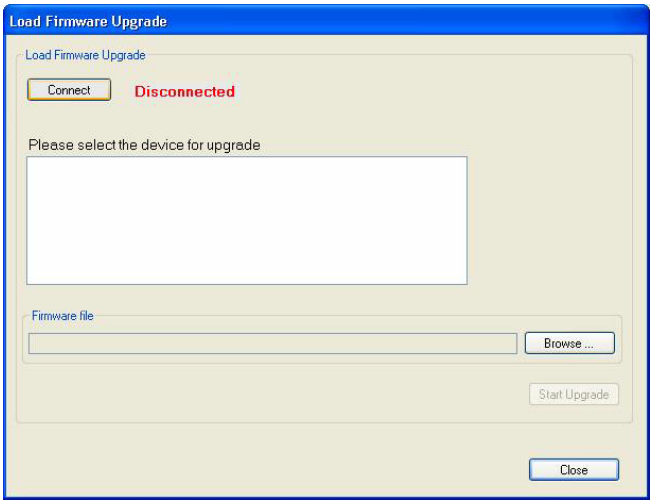


Figure 51: Load Firmware Upgrade Window (SV-551)

2. Click the **Connect** button.
   The Connect Window appears:

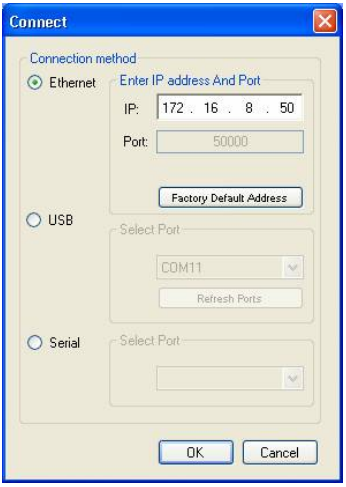


Figure 52: Connect Window

1. Choose the connection method according to the cable connection you have made between the PC and your product.
3. Click OK.
4. Select the device for upgrade from the list box[1].
5. Click the Browse button to find the firmware file.

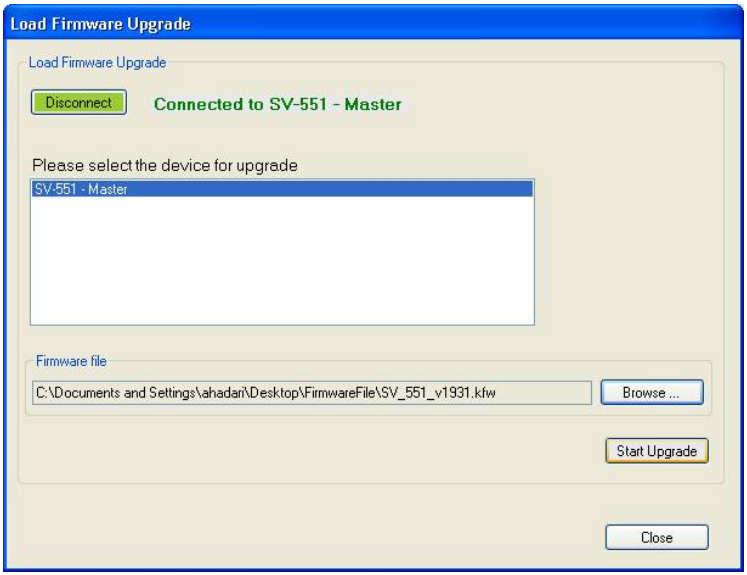


Figure 53: Load Firmware Upgrade Window (RC-6x)

6. Connect to the device.
7. Click the Connect button to connect the device and then click Start Upgrade.
8. Upon completion, open the Device Properties window (see Figure 49) to make sure the firmware was upgraded[2].

1 When selecting a room controller device such as RC-6x, you have to select the connection method: Direct connection or Connection via SV-551 via K-NET

2 If the firmware number remains the same, close the Device Properties windows, disconnect and then reconnect the device, and open the Device Properties window again to check the firmware number

7 Connecting the RC-6X Series Room Controller as a Standalone Device

You can configure the Room Controller to be used as a standalone device. To do this you have to connect the Room controller directly to your PC via the USB connector.

To define the RC as a Master device:

1. From the Device Menu, click Connect….
2. Select the connection method to be USB, select the port and click OK.
   The following warning appears:

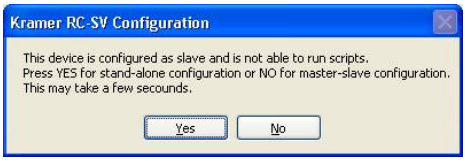


Figure 54: Transforming to the Standalone Configuration

3. Click Yes.
   The room controller is now standalone and the Device description appears as follows:

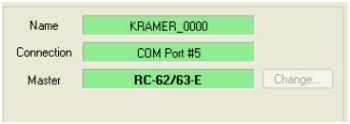


Figure 55: Standalone Device Description

When in the standalone mode, you can write the command sequences directly to the room controller by clicking the Write Configuration button in the Device area (see section 9).

The following windows will appear differently when in the standalone mode:

- The Port Manager window, see section 7.1
- The Device Properties window, see section 7.2

7.1 The Port Manager in the Standalone Mode

The Port Manager[1] displays the ports relevant to the room controller, as illustrated in Figure 56 (for example, for **RC-52**):

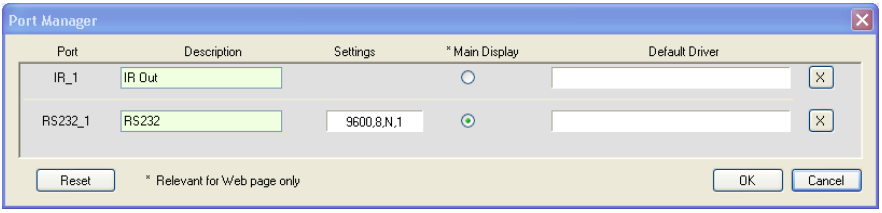


Figure 56: The Port Manager in the Standalone Mode

7.2 The Device Properties Window in the Standalone Mode

Figure 57 shows the Device Properties window in the standalone mode:

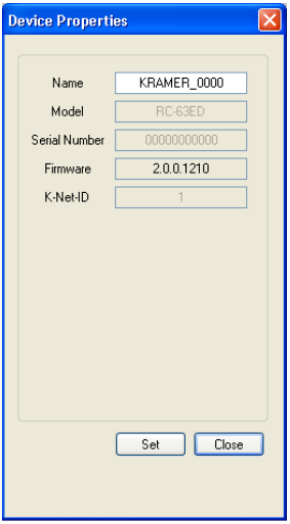


Figure 57: The Device Properties Window in the Standalone Mode

To exit the standalone mode open the Device menu and select Set as Slave.

1 The Main Display column is N/A

8 Connecting via the ETHERNET

You can connect the **SV-551** via the Ethernet, using a crossover cable (see section 8.1) for direct connection to the PC or a straight through cable (see section 8.2) for connection via a network hub or network router.

8.1 Connecting the ETHERNET Port directly to a PC (Crossover Cable)

You can connect the Ethernet port of the RC device to the Ethernet port on your PC, via a crossover cable with RJ-45 connectors.

This type of connection is recommended for identification of the factory default IP Address of the RC device (192.168.1.39) during the initial configuration

After connecting the Ethernet port, configure your PC as follows:

1. Right-click the My Network Places icon on your desktop.
2. Select **Properties**.
3. Right-click Local Area Connection Properties.
4. Select **Properties**.
   The Local Area Connection Properties window appears.
5. Select the Internet Protocol (TCP/IP) and click the **Properties** Button (see Figure 58).

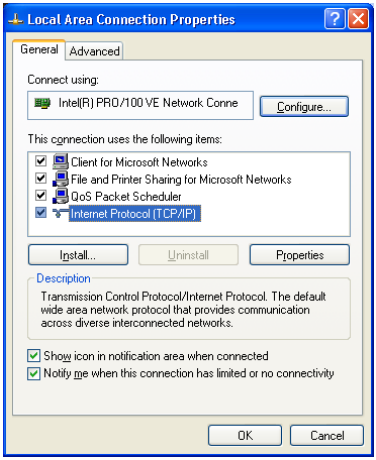


Figure 58: Local Area Connection Properties Window

6. Select Use the following IP Address, and fill in the details as shown in Figure 59.
7. Click OK.

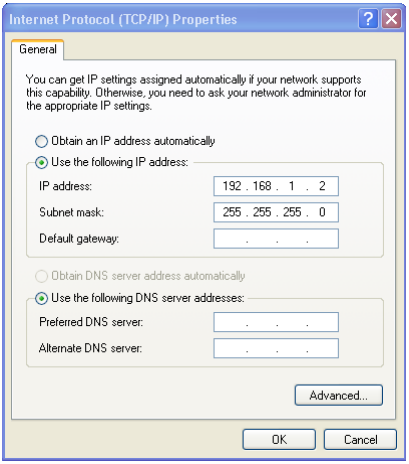


Figure 59: Internet Protocol (TCP/IP) Properties Window

8.2 Connecting the ETHERNET Port via a Network Hub (Straight-Through Cable)

You can connect the Ethernet port of the RC device to the Ethernet port on a network hub or network router, via a straight-through cable with RJ-45 connectors.

9 Writing a Configuration

Once your configuration is ready, you can write it to the device, via the "Write Configuration" button.

Note that if the room controller is defined as a:

- Master (standalone), the configuration is written directly to the device
- Auxiliary device (for example, the room controller is connected to the **SV-551**), the configuration is written to the **SV-551**

In case you have written the configuration to a standalone device and it is now connected as an auxiliary device to the **SV-551**, you have to write the configuration once again after defining the device as an auxiliary device.

To write a configuration to the device, do the following:

1. Connect the PC to the:

- **RC-6x** (standalone) to write the configuration directly to the **RC-6x**
- **SV-551** (in a SummitView™ kit setup) to write the configuration to the **SV-551**

2. From the File menu, select Load Configuration[1]….
   The Open window appears (see Figure 60).
3. Click Open[1]
4. In the Device area in the RC-SV Configuration main window, click the Write Configuration button[2].
   The configuration is written to the device.

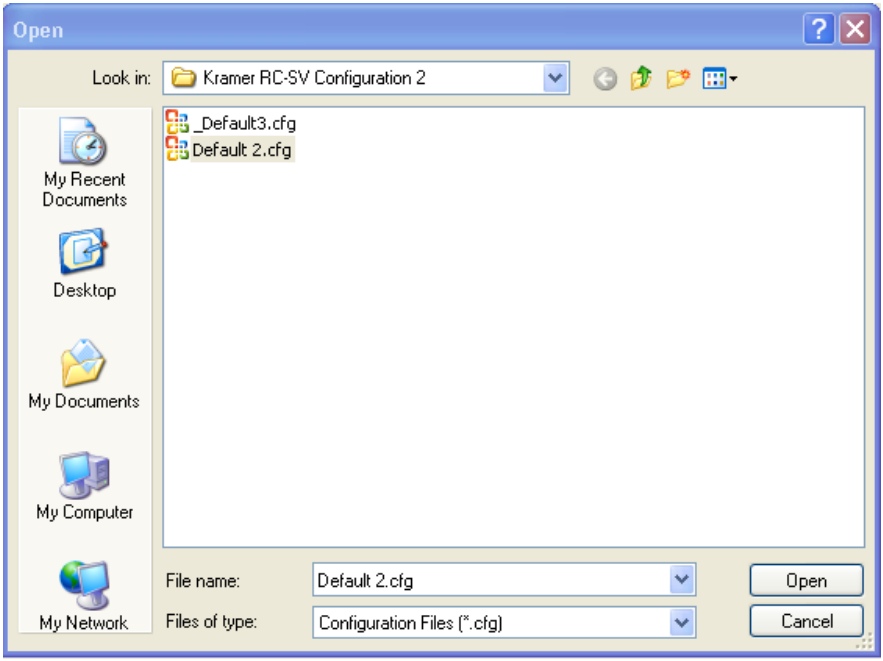


Figure 60: Loading a Configuration

1 Skip this step if you have the desired configuration loaded

2 The Write Configuration button is enabled only when the device is connected