



MANUAL PART NUMBER: 400-0010-003  
PRODUCT REVISION: 2

## DA1914SX

### 2 - IN, 1 - OUT

### RGBS AUTO SWITCHER

### USER'S GUIDE

**EALTINEX**

SIGNAL  
MANAGEMENT  
SOLUTIONS

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## INTRODUCTION

Altinex appreciates your purchase of the **DA1914SX** Switcher. We are sure you will find it a reliable and useful product.

Superior performance for the right price backed by solid technical and customer support is what we have to offer.

The product you are holding in your hands is designed using state-of-the-art technology and is superior to anything available on the market. You will find this and our other products reliable, long lasting, and simple to operate.

We are committed to providing our customers with solutions to the most demanding audio-visual installations at very competitive pricing.

We appreciate your selection of our products and are confident that you will join the ranks of our many satisfied customers throughout the world.

### **This manual covers:**

**DA1914SX** – 2– in, 1 - out RGSB Auto Switcher

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## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DA1914SX** Switcher. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **DA1914SX** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

### 1.1 GENERAL

- Unauthorized personnel shall not open the unit since there are high-voltage components inside.
- Qualified Altinex service personnel, or their authorized representatives must perform all service.

### 1.2 SAFETY GUIDELINES FOR THE RACK-MOUNTING OF THE DA1914SX

- Maximum operating ambient temperature is 35 (degrees C).
- Never restrict the airflow through the device's fan or vents.
- When installing equipment into a rack, distribute the units evenly. Otherwise, hazardous conditions may be created by an uneven weight distribution.
- Connect the unit to a properly rated supply circuit.
- Reliable Earthing (Grounding) of Rack-Mounted Equipment should be maintained.

### 1.3 INSTALLATION

- For best results, place the **DA1914SX** Switcher on a flat, level surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **DA1914SX** Switcher in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **DA1914SX** Switcher carefully. Dropping or jarring can damage internal components.

- Do not place heavy objects on top of the **DA1914SX**. If the **DA1914SX** is to be mounted to a table or wall, use only a Altinex made mounting accessories, such as the mount mini-brackets **DA1295SX** (or **RC5203CC** Contact Closure Switch w/6 foot cable) and cables for optimum setup.
- To turn off the main power, be sure to remove the adapter from the power outlet. The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.
- Do not pull the adapter or any cable that is attached to the **DA1914SX** Switcher.
- If the **DA1914SX** Switcher is not used for an extended period, disconnect the adapter from the power outlet.

### 1.4 CLEANING

- Unplug the **DA1914SX** adapter before cleaning. Clean surfaces with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

### 1.5 FCC / CE NOTICE

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be

required to correct the interference at his own expense.

- Any changes or modifications to the unit not expressly approved by Altinex, Inc. could void the user's authority to operate the equipment.

## ABOUT YOUR SWITCHER 2

The **DA1914SX** is a 2-in, 1-out RGBS Auto Switcher with manual remote capability through contact closure. Using four Female BNC connectors for each input and output, the **DA1914SX** has a fully buffered output.

The **DA1914SX** offers a Sync Source switch, enabling it to auto-switch RGBS signal formats when placed in the SYNC position, and auto-switch RGsB and Composite Video signals when placed in the GREEN position. Composite Video signals must be passed through the Green channel when auto-switching is necessary. When two active sources are present, the **DA1914SX** will select the default input, which is Input 2.

The **DA1914SX** can be controlled manually by connecting a latching contact closure control to its 2.5mm mini-coaxial remote control jack. The **DA1914SX** comes with a small switch and a 6 foot cable (part# **RC5203CC**) that performs the manual switch function, or contact closure may be made from a control system. The contact closure acts as a "push", switching back and forth between two active sources and switching between ON and OFF when a single active source is on Input 1. If a single active source is on Input 2 (the default), the manual control will not push to Input 1.

In auto-switch mode, the **DA1914SX** is perfect for applications in which a user plugs in one of two input plates at different locations. In manual mode, the **DA1914SX** is great as an ON/OFF switch or for simply switching between two active computers.

The **DA1914SX** may be mounted to furniture or other suitable surfaces using optional hardware.

## TECHNICAL SPECIFICATIONS 3

FEATURES/DESCRIPTION	DA1914SX
<b>GENERAL</b>	
<b>Inputs</b>	2
Input Connectors	Two 4-BNC Female
<b>Outputs</b>	1
Output Connectors	4-BNC Female
<b>Compatibility</b>	RGBS, RGsB, Component Video (Y, R-Y, B-Y), S-Video (Y/C), and Composite Video

Table 1. **DA1914SX** General

MECHANICAL	DA1914SX
Material	0.1" Al
Finish	Gray
Top Panel	Lexan
Height (inches)	3.50in (89mm)
Width (inches)	4.62in (117mm)
Depth (inches)	1.00in (25mm)
Weight (pounds)	0.4lbs (0.18kg)
Ship Weight (pounds)	2.0lbs (0.91kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

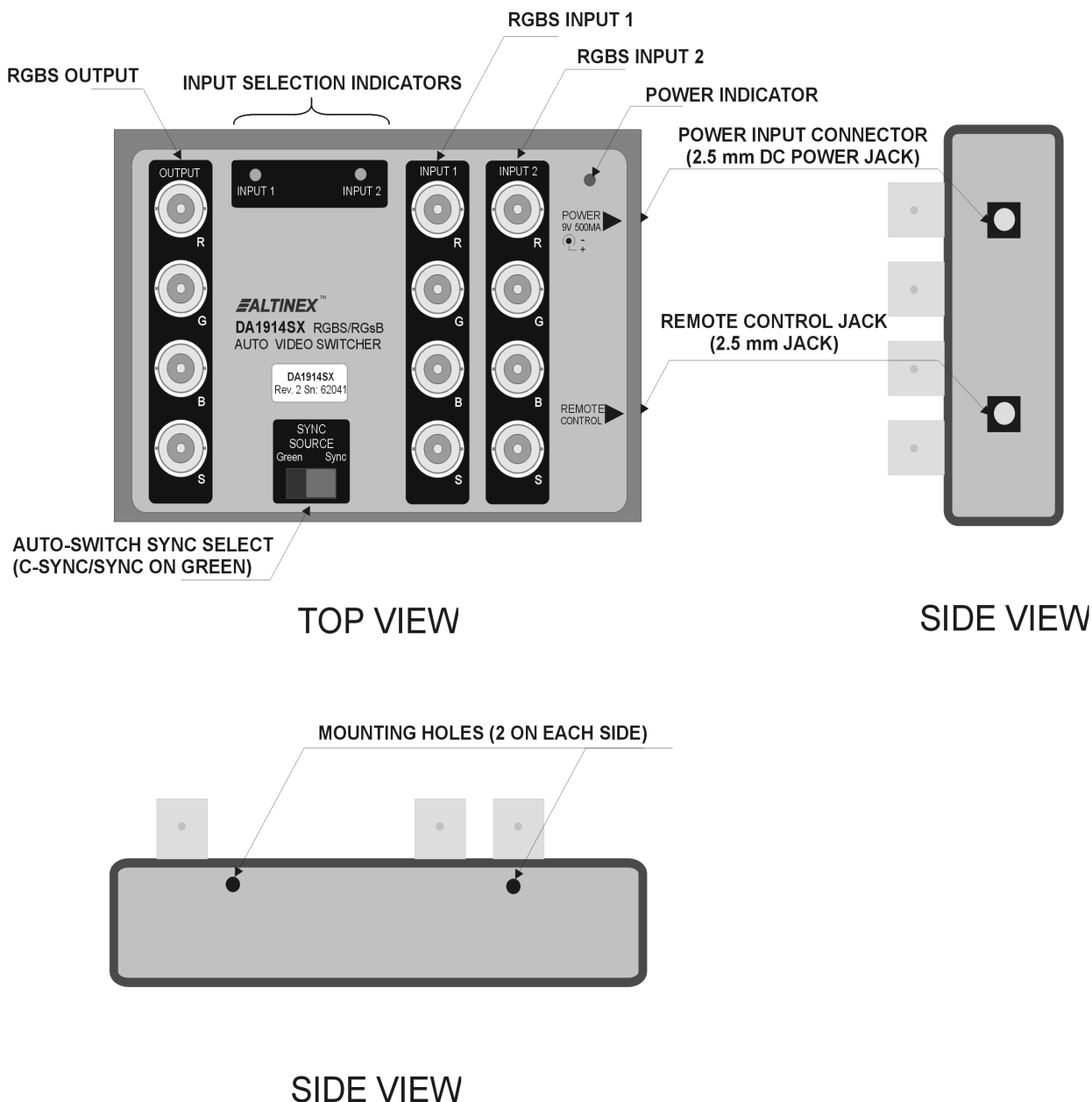
Table 2. **DA1914SX** Mechanical

ELECTRICAL	DA1914SX
<b>Input Video Signals</b>	
Analog Signal	1.5V p-p max
Impedance	75 Ohms
<b>Input Sync Signals</b>	
Composite Sync	TTL(+/-)
Sync on Green	-0.3V
Impedance	10 k Ohms
<b>Output Video Signals</b>	
Analog Signal	1.5V p-p max
Fall/Rise Time (ns)	2.0
Impedance	75 Ohms
<b>Output Sync Signals</b>	
Composite Sync	TTL(+/-)
Sync on Green	-0.3V
Impedance	22 Ohms
<b>Frequency Compatibility</b>	
Typical Video Bandwidth	350 MHz

Horizontal	15-200 kHz
Vertical	30-190 Hz
Cross-talk	-40dB @10 MHz
Coupling	DC
Power	
External Power Adapter	9V 500mA (included)
Power Consumption	3 watts max.

Table 3. DA1914SX Electrical

## DESCRIPTION OF DA1914SX 4



## 4.1 INPUT AND OUTPUTS

The **DA1914SX** uses four Female BNC connectors for each input and output. The **DA1914SX** can pass RGBS, RGsB, Component Video, S-Video, and Composite Video signals. Video signals must be passed through Red, Green, and/or Blue channels; Sync channel is not designed to pass video. C-Video must be passed through the Green channel.

## 4.2 AUTO-SWITCH MODE

The **DA1914SX** automatically selects the active source, by sensing the incoming sync. Sync sensing occurs on the Sync channel for RGBS signals and on the Green channel for RGsB or Composite signals. The sync source switch should be switched from SYNC to GREEN when using RGsB or Composite Video sources. The Composite source must be connected to the Green channel in order for the auto-switcher to work properly with composite video signals. When both signals are present, the switcher will default to INPUT 2.

## 4.3 MANUAL SWITCH MODE

The **DA1914SX** can be controlled manually by connecting a contact closure control switch to its 2.5mm mini-coaxial remote control jack. Altinex offers a remote control switch with a 6 foot cable, (Part # **RC5203CC**), which performs the manual switch function. The **DA1914SX** can also be controlled using contact closure relays on a control system.

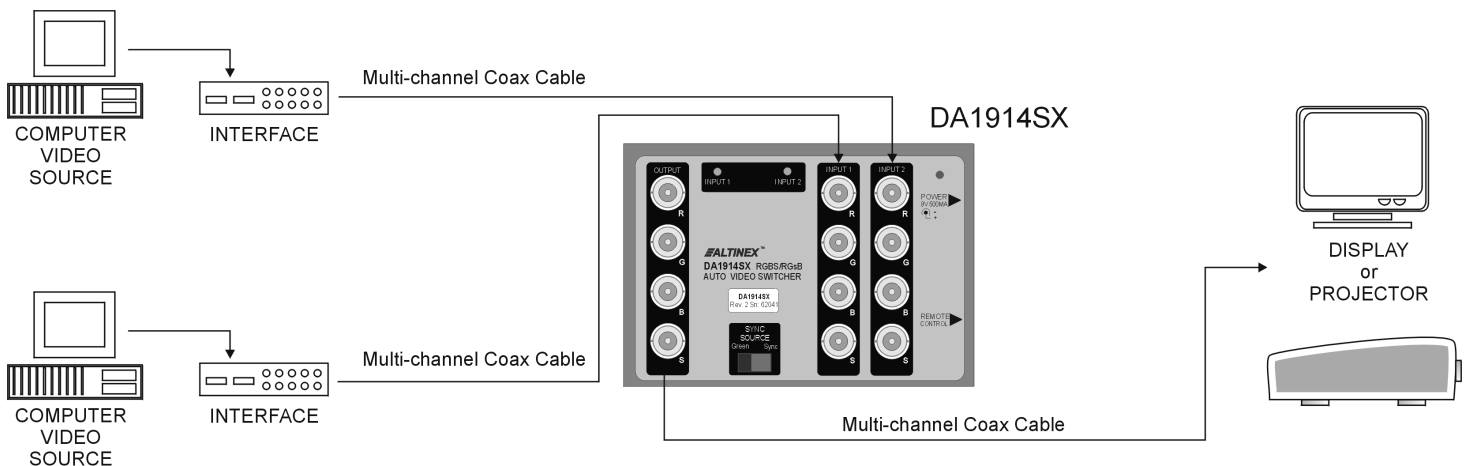
When an active source is on INPUT 1, the manual switch will not affect the input, and will not switch to INPUT 2.

When an active source is on INPUT 2, the manual switch will act as an ON/OFF switch, forcing the switcher to INPUT 1 when the contact closure is in the CLOSED position.

When two active sources are present on INPUT 2 in the OPEN Switching Mode, the **DA1914SX** will select INPUT 1. If the contact closure is in the CLOSED position, and remains on INPUT 2, the contact closure will switch to the OPEN position. LED lights indicate the correct switching.

## APPLICATION DIAGRAM

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## INSTALLING YOUR SWITCHER 6

- Step 1.** Make sure that the proper power adapter is used. The Altinex power adapter is supplied with the unit.
- Step 2.** Connect the power adapter to the power port. The power indicator light and the input lights should turn red.
- Step 3.** Remove the anti-static connector covers and connect the cables from the computer video card or from the video output of other sources, to INPUT 1 or INPUT 2 of the **DA1914SX**.
- Step 4.** Connect the cables from the output port of the **DA1914SX** to the large screen monitor or data projector.
- Step 5.** If a remote control switch is used, connect the **RC5203CC** (contact closure switch w/6 foot cable) to the remote control connector.
- Step 6.** If a control system is used to control the **DA1914SX**, connect the remote control port of the **DA1914SX** to the relays port of the control system.
- Step 7.** Verify that the picture quality on the display is good. If a signal is not being received, make sure that the display is compatible with the resolution of the computer graphics card.

**CONGRATULATIONS! YOU ARE DONE.**

If you experience any problems, please call  
1-800-258-4623 or 1-714-990-2300 for  
international calls.

## OPERATION 7

The settings of the **DA1914SX** Switcher can be adjusted using auto-switch mode and manual switch mode as described in Section 4. There are no other adjustments necessary to operate the unit. The **DA1914SX** will operate successfully as long as cables are attached properly and other technical specifications are followed.

## ACCESSORIES 8

Model No.	Description
	<b>RACK MOUNTING ACCESSORIES</b>
<b>DA1295RM</b>	Mount mini-brackets (2 – “L” shape)
	<b>CONTACT CLOSURE SWITCH</b>
<b>RC5203CC</b>	Contact Closure with 6 ft. cable
	<b>HIGH RESOLUTION 4 BNC to 4 BNC COAXIAL CABLE</b>
<b>CB4100MR</b>	Bulk Cable 4 coaxes (500ft minimum)
<b>CB4103MR</b>	3 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4106MR</b>	6 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4112MR</b>	12 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4125MR</b>	25 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4150MR</b>	50 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4175MR</b>	75 feet, 4 BNC to 4 BNC coaxial cable
<b>CB41100MR</b>	100 feet, 4 BNC to 4 BNC coaxial cable
<b>CB41150MR</b>	150 feet, 4 BNC to 4 BNC coaxial cable
	<b>SUPER HIGH RESOLUTION 4 BNC to 4 BNC COAX</b>
<b>CB4300MR</b>	Bulk Cable 4 coaxes (500ft minimum)
<b>CB4306MR</b>	6 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4312MR</b>	12 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4325MR</b>	25 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4350MR</b>	50 feet, 4 BNC to 4 BNC coaxial cable
<b>CB4375MR</b>	75 feet, 4 BNC to 4 BNC coaxial cable
<b>CB43100MR</b>	100 feet, 4 BNC to 4 BNC coaxial cable
<b>CB43150MR</b>	150 feet, 4 BNC to 4 BNC coaxial cable
	<b>POWER ADAPTERS</b>
<b>PC5502US</b>	9V 500mA Power Supply for US
<b>PS5503US</b>	9V 500mA Power Supply for US w/50 ft wire
<b>PS5512UK</b>	9V 500mA Power Supply for UK
<b>PS5522AU</b>	9V 500mA Power Supply for Australia
<b>PS5532GR</b>	9V 500mA Power Supply for Germany
<b>PS5542JP</b>	9V 500mA Power Supply for Japan

## FREQUENTLY ASKED QUESTIONS 9

No:	Question	Answer
1	What is a Switcher?	A Switcher is a device that allows you to connect multiple video sources to a single display and select between the sources.
2	When do I use the <b>DA1914SX</b> ?	If you have two computers and you want to display them on a single monitor, you would use the <b>DA1914SX</b> between the computers and the monitor, using cables to interconnect the pieces. The switcher would then allow you to select which computer would be displayed on the monitor at any given time.
3	What kind of signal formats may I pass through the <b>DA1914SX</b> ?	The <b>DA1914SX</b> can pass RGBS, RGsB, Component Video (Y, R-Y, B-Y), S-Video (Y/C), and Composite Video signals.
4	Is the output of the <b>DA1914SX</b> buffered?	Yes, the <b>DA1914SX</b> offers a fully buffered output.
5	Why do I need the Sync Source switch?	The <b>DA1914SX</b> offers a Sync Source switch, enabling it to auto-switch RGBS signal formats when placed in the SYNC position, and auto-switch RGsB and Composite Video signals when placed in the GREEN position.
6	How far can I run a signal through the <b>DA1914SX</b> ?	The output of the <b>DA1914SX</b> allows signals to be driven through 100 feet of cable depending on the cable quality and the source signal resolution without degradation of the image quality.

## TROUBLESHOOTING GUIDE 10

We have carefully tested and have found no problems in the supplied **DA1914SX** unit; however, we would like to offer the following suggestions:

- Please make sure that you have the correct setting Sync Source Switch. If you pass RGBS, the signal format switch must be in the SYNC position. If you pass RGsB or Composite Video signal formats, the switch must be in the GREEN position.
- Make sure that the correct power adapter is connected to the unit.
- Please make sure that the input amplitude of the analog signal is less than 1.5V.
- Please use the Altinex supplied external adapter (9V, 500mA).
- Please make sure that the proper quality of cables is used. We recommend Altinex made cables for the best results.
- If a problem arises after continuous usage at higher voltage, higher temperature, higher humidity, or at other extreme environmental conditions, please correct the problem.



## 11.1 LIMITED WARRANTY

Altinex warrants that its products and cables are free from defects in materials under normal use and service. This warranty is limited to repairing at company's factory any part or parts of the product, which upon company's examination shall disclose to be, thus defective. Products considered defective should be returned to company with transportation charges pre-paid within 2 years (90 days for cables) from date of shipment to the purchaser. The warranty is expressly instead of all other warranties expressed or implied. Altinex neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of the products. This warranty shall not apply to any product that shall have been repaired or altered outside of company's factory in any way so as, in its judgment, to affect its stability or reliability, or that has been subject to misuse, negligence or accident.

## 11.2 RETURN POLICY

It is very important to Altinex that you receive the products that you have ordered and that this product fulfills your need. In the unlikely event, that an Altinex product needs to be returned please follow the policies below:

Altinex will accept product returns for a period of 30 days from authorized Altinex dealers. Products must be returned in an unopened package.

If a product has been opened, the restocking fees will apply. For the restocking fee amount, please contact an Altinex Sales Representative.

If the product is in your possession for more than 30 days, the restocking fees will apply.

Altinex will not accept any returns on cables or custom products.

If your product is in warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service.

If your product is out of warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service. The service charges will be quoted to you before the actual repairs are done.

## 11.3 CONTACT INFORMATION

### Sales Department

Phone: 714-990-2300

Fax: 714-990-3303

### Accounting Department

Phone: 714-990-6088

Fax: 714-990-5778

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