instruction manual

model 315 video sync separator

s/n_________________

colorado video, inc
boulder, colorado
january 2016
WARNING

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications.

It has been tested and found to comply with the limits for a class A computing device pursuant to subpart J of part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>GENERAL DESCRIPTION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>Purpose of Equipment</td>
<td>1</td>
</tr>
<tr>
<td>1.3</td>
<td>Description of Equipment</td>
<td>1</td>
</tr>
<tr>
<td>1.4</td>
<td>Specifications</td>
<td>2</td>
</tr>
<tr>
<td>2.1</td>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>2.2</td>
<td>Initial Installation</td>
<td>3</td>
</tr>
<tr>
<td>2.3</td>
<td>Operation</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>OPERATING INSTRUCTIONS</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>WARRANTY</td>
<td>4</td>
</tr>
</tbody>
</table>
SECTION I

GENERAL DESCRIPTION

1.1 INTRODUCTION

This instruction manual is to be used as a guide to the installation, adjustment, operation and maintenance of the Colorado Video Model 315 Video Sync Separator.

1.2 PURPOSE OF EQUIPMENT

The Model 315 Video Sync Separator is a device for extracting the timing pulses from a composite video signal. These pulses can be useful for genlocking other video devices, oscilloscope triggering, etc. Various models provide different polarities and formats of pulses.

1.3 DESCRIPTION OF EQUIPMENT

The Colorado Video Model 315 consists of a single printed circuit board in a small plastic chassis, with connectors and a separate wall-mount power supply.
1.4 SPECIFICATIONS

Size: 4.38" W X 3.25" D X 1.5" H excluding connectors

Weight: 11 Oz.

Mounting: Table-top, free standing

Power: 9 VAC, <200 mA, 120 VAC adapter included.
       (220 VAC optional)

Inputs/Video: NTSC or RS-170, 1 VP-p, Hi-Z looping.

Outputs:
       ALL: Vertical, Horizontal, Composite Sync
       315E: 0 to -4 V
       315TE: 0 to +5 V
       315TE: 0 to +5 V
       315T: 0 to +5 V
       315T: +5 to 0 V

Controls: None

Indicators: Power (LED)

Connectors:
       Video Input: BNC looping Hi-Z
       Power: 2.1mm coaxial power jack
       -4 Volt EIA outputs: BNC
       +5 Volt TTL outputs: DB-9 female
SECTION II
OPERATING INSTRUCTIONS

2.1 INTRODUCTION

This section contains the general operating instructions and procedures for the Model 315 Video Sync Separator.

2.2 INITIAL INSTALLATION

Connect the video source to one of the two looping input BNC’s. Terminate the other input connector with a $75\Omega$ terminator or by cabling to a terminated destination device (i.e. monitor).

Connect the plug-in power supply to the 315 and plug the power supply into a proper power outlet.

Note: on models with EIA outputs, those outputs are -4 volt into $75\Omega$. Unterminated destination will receive -8 volt pulses.

Connect the output signals as desired.
Colorado Video, Incorporated warrants the equipment of its manufacture to be free of defects in material and/or workmanship under normal use and service. Colorado Video, Incorporated’s obligation under this warranty is limited to making good at its laboratories any part or parts thereof, which shall within one (1) year after delivery to the original purchaser be returned to Colorado Video, Incorporated at its laboratories, with transportation charges prepaid, and which Colorado Video, Incorporated’s examination shall disclose to its satisfaction to have been defective.

This warranty is expressly in lieu of all other warranties and representation, express or implied, and of all other obligations or liabilities on the part of Colorado Video, Incorporated. In no event shall Colorado Video, Incorporated be liable for damages of any kind connected with the use of its equipment or its failure to function properly.

This warranty shall not apply to any equipment which shall have been repaired or altered outside of Colorado Video, Incorporated’s laboratories so as to, in Colorado Video, Incorporated’s judgement, affect its use, function, reliability, or which shall have been subject to misuse, alteration, improper installation, negligence, or accident.

Before any equipment is returned to Colorado Video, Incorporated for repairs or adjustments, shipping instructions should be obtained from Colorado Video, Incorporated. Colorado Video, Incorporated assumes no responsibility for unauthorized returns.