

## User's Manual



**YCV 100**  
S-Video Encoder

**VYC 100N and VYC 100P**  
Composite Video Decoder

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# Precautions

## Safety Instructions • English



This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.



This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

## Caution

**Read Instructions** • Read and understand all safety and operating instructions before using the equipment.

**Retain Instructions** • The safety instructions should be kept for future reference.

**Follow Warnings** • Follow all warnings and instructions marked on the equipment or in the user information.

**Avoid Attachments** • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

## Consignes de Sécurité • Français



Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).



Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

## Attention

**Lire les instructions** • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

**Conservr les instructions** • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

**Respecter les avertissements** • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

**Éviter les pièces de fixation** • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

## Sicherheitsanleitungen • Deutsch



Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.



Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

## Achtung

**Lesen der Anleitungen** • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits- und Bedienungsanleitungen genau durchlesen und verstehen.

**Aufbewahren der Anleitungen** • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

**Befolgen der Warnhinweise** • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

**Keine Zusatzgeräte** • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

## Instrucciones de seguridad • Español



Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.



Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

## Precaución

**Leer las instrucciones** • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

**Conservar las instrucciones** • Conservar las instrucciones de seguridad para futura consulta.

**Obedecer las advertencias** • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

**Evitar el uso de accesorios** • No usar herramientas o accesorios que no sean específicamente recomendados por el fabricante, ya que podrían implicar riesgos.

## Warning

**Power sources** • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

**Power disconnection** • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

**Power cord protection** • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

**Servicing** • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

**Slots and openings** • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

**Lithium battery** • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

## Avertissement

**Alimentations** • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

**Déconnexion de l'alimentation** • Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

**Protection du cordon d'alimentation** • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

**Réparation-maintenance** • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et/ou des orifices.

**Fentes et orifices** • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

**Lithium Batterie** • Il a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au reut les batteries usagées conformément aux instructions du fabricant.

## Vorsicht

**Stromquellen** • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdschluss, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

**Stromunterbrechung** • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stromversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

**Schutz des Netzkabels** • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegen gestellt werden können.

**Wartung** • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

**Schlitze und Öffnungen** • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

**Lithium-Batterie** • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

## Advertencia

**Alimentación eléctrica** • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearla ni eliminarla.

**Desconexión de alimentación eléctrica** • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

**Protección del cables de alimentación** • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

**Reparaciones/mantenimiento** • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

**Ranuras y aberturas** • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalentamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

**Batería de litio** • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

# Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

### USA, Canada, South America, and Central America:

Extron Electronics  
1001 East Ball Road  
Anaheim, CA 92805, USA

### Europe, Africa, and the Middle East:

Extron Electronics, Europe  
Beeldschermweg 6C  
3821 AH Amersfoort  
The Netherlands

### Japan:

Extron Electronics, Japan  
Kyodo Building  
16 Ichibancho  
Chiyoda-ku, Tokyo 102-0082  
Japan

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

*If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.*

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

## 安全须知 • 中文



这个符号提示用户该设备用户手册中的操作和维护说明。



这个符号警告用户该设备机壳内暴露的危险电压，有触电危险。

### 注意

**阅读说明书** • 用户使用该设备前必须阅读并理解有安全和使用说明。

**保存说明书** • 用户应保存安全说明书以备将来使用。  
**遵守警告** • 用户应遵守产品和用户指南上的所有安全和操作说明。

**避免追加** • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

### 警告

**电源** • 该设备只能使用产品上标明的电源。设备必用有地线供电系统供电。第三条线（地线）是安设施，不能不用或跳过。

**拔掉电源** • 为安全地从设备拔掉电源，请拔掉所有后备或桌面电源的电源线，或任何接到市电系统电源线。

**电源线保护** • 妥善布线，避免被踩踏，或重物挤压。

**维护** • 所有维修必须由认证的维修人员进行。设备部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

**通风孔** • 有些设备机壳上有通风槽或孔，它们是用防止机内敏感元件过热。不要用任何东西挡住通风孔。

**锂电池** • 不正确的更换电池会有爆炸的危险。必须使与厂家推荐的相同或相近型号的电池。按照生产厂的议处理废弃电池。

## FCC Class A Notice

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.

**NOTE** *This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.*

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# Chapter One

## **Introduction**

About the YCV 100, VYC 100N and VYC 100P

Features

# Introduction

## About the YCV 100, VYC 100N, and VYC 100P

The Extron YCV 100 is a high-performance S-video to composite video encoder. It combines S-video Y and C (luminance and chrominance) signals into a composite video signal. The encoder is compatible with NTSC 3.58, NTSC 4.43, PAL, and SECAM signals. The unit accepts S-video input on two female BNC connectors or one 4-pin mini DIN connector and outputs composite video on one female BNC connector.

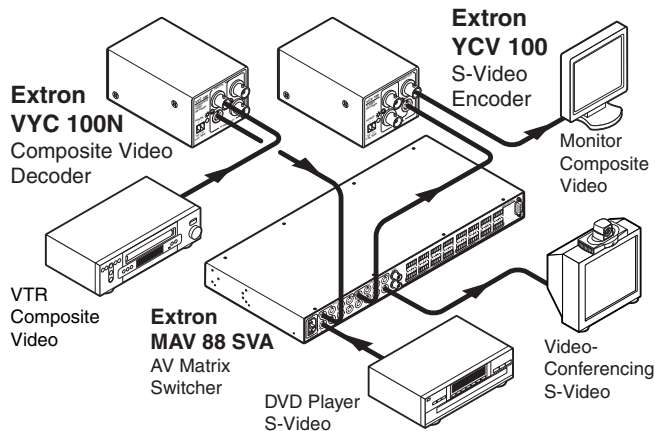
The Extron VYC 100N and VYC 100P are composite video to S-video decoders. It separates a composite video signal into S-video Y and C signals. The VYC 100N decodes NTSC 3.58 signals only and the VYC 100P decodes PAL signals only. Both decoders accept composite video input on one female BNC connector and outputs S-video signals on two female BNC connectors and/or one 4-pin mini DIN connector.

All units include an external 12 V power supply that accepts 100-240 VAC 50/60 Hz input.

## Features

**Furniture, projector, and rack mountability** — The YCV 100, VYC 100N, and VYC 100P can be mounted under a desk, podium, or other furniture, or secured to a projector mount with optional brackets. Alternatively, they can be mounted on an optional VersaTools® or universal rack shelf.

**Versatile S-video input/output configuration** — The encoder and decoder can pass S-video signals via two female BNC connectors or one 4-pin mini DIN connector.



## YCV 100, VYC 100N, and VYC 100P

# Chapter Two

## Installation and Operation

Mounting the YCV 100, VYC 100N, and VYC 100P

Front Panel Features

Rear Panel Features and Cabling

Troubleshooting

# Installation and Operation

## Mounting the YCV 100, VYC 100N, & VYC 100P

The YCV 100, VYCN, and VYC 100P can be set on a table or mounted on a rack shelf, under a desk or tabletop, or on a projector mount.

### Tabletop use

Four self-adhesive rubber feet are included with the YCV 100, VYC 100N, and VYC 100P. For tabletop use, attach one foot at each corner of the bottom side of the unit and place the unit in the desired location.

### UL rack mounting guidelines

The following Underwriters Laboratories (UL) guidelines pertain to the safe installation of the YCV 100, VYC 100N, and VYC 100P in a rack.

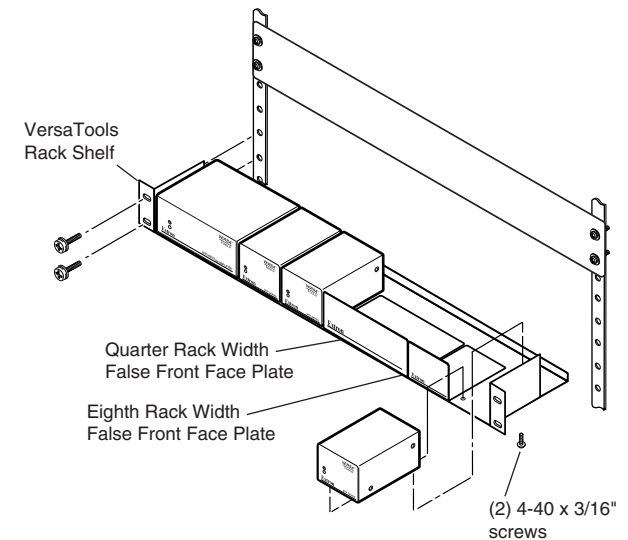
1. **Elevated operating ambient temperature** — If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install the unit in an environment compatible with the maximum ambient temperature ( $T_{ma} = +122\text{ }^{\circ}\text{F}, +50\text{ }^{\circ}\text{C}$ ) specified by Extron.
2. **Reduced air flow** — Install the equipment in a rack so that the amount of air flow required for safe operation of the equipment is not compromised.
3. **Mechanical loading** — Mount the equipment in the rack so that a hazardous condition is not achieved due to uneven mechanical loading.
4. **Circuit overloading** — Connect the equipment to the supply circuit and consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
5. **Reliable earthing (grounding)** — Maintain reliable grounding of rack-mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

## Rack mounting

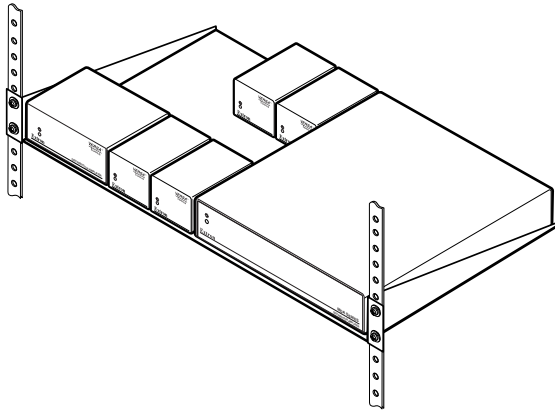
For optional rack mounting, do not install the rubber feet. Mount the YCV 100, VYC 100N, or YCV 100P, on a VersaTools™ rack shelf (RSF 123, Extron part #60-190-20; RSB 123, part #60-604-21), or on a 6" deep rack shelf (RSU 126, part #60-190-10; RSB 126, part #60-604-11), or on a 1U universal rack shelf (RSU 129, part #60-190-01; RSB 129, #60-604-02).

On the standard rack shelf, the YCV 100, VYC 100N, and VYC 100P mount in one of eight locations to the rear of the shelf or in one of eight locations to the front of the shelf.

1. Remove rubber feet if they were previously installed on the bottom of the unit.
2. Mount the unit on the rack shelf, using two 4-40 x 3/16" screws in opposite (diagonal) corners to secure the unit to the shelf.
3. Install blank panel(s) or other unit(s) on the rack shelf.



**Mounting the YCV 100, VYC 100N, and VYC 100P on a VersaTools rack shelf**

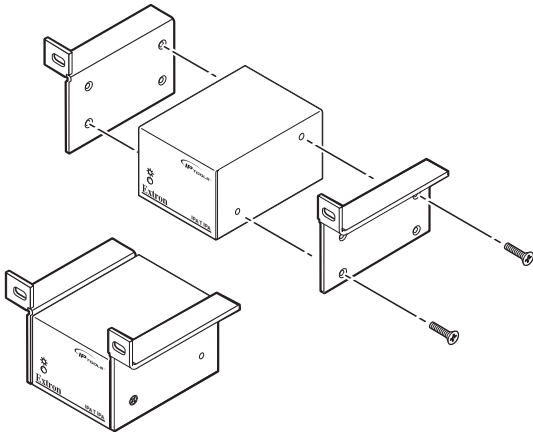


**Mounting the YCV 100, VYC 100N, and VYC 100P on a 1U standard rack shelf**

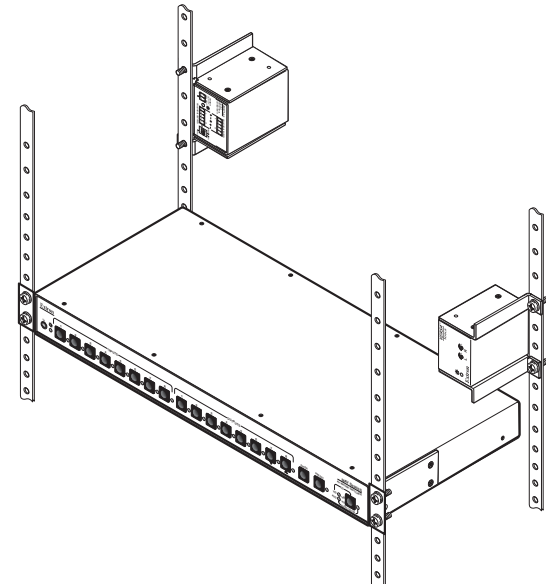
## Back of the rack installation

The YCV 100, VYC 100N, and VYC 100P can be conveniently mounted on the rear of a rack by using the Extron back of the rack mounting kit (MBB 100, Extron part #70-367-01). The back-of-the-rack mounting kit allows the device to be vertically positioned.

1. Attach the two back of the rack mounting brackets to the sides of the unit using the four included mounting screws.



2. Mount the unit on the rack using the two included rack screws. It can be vertically mounted facing in either direction, as shown here.



## Furniture mounting

Furniture mount the YCV 100, VYC 100N, or VYC 100P using the optional MBU 123 mounting kit (part #70-212-01) as follows:

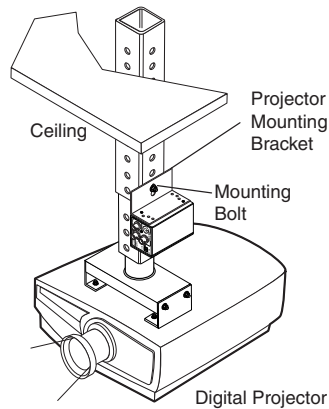
1. Remove rubber feet if they were previously installed on the bottom of the unit.
2. Attach the furniture mounting brackets to the unit with the machine screws provided.
3. Hold the unit with the attached brackets against the underside of the table or other furniture. Mark the location of the screw holes of the bracket on the mounting surface.
4. Drill  $3/32$ " (2 mm) diameter pilot holes,  $1/4$ " (6.3 mm) deep in the mounting surface at the marked screw locations.
5. Insert #8 wood screws into the four pilot holes. Tighten each screw into the mounting surface until just less than  $1/4$ " of the screw protrudes.
6. Align the mounting screws with the slots in the brackets and place the unit against the surface, with the screws through the bracket slots. See the illustration below.
7. Slide the unit slightly forward or back, then tighten all four screws to secure the unit in place.



## Projector mounting

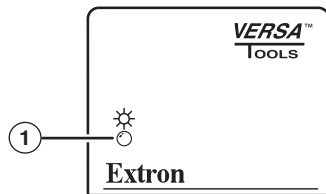
Projector mount the YCV 100, VYC 100N, or VYC 100P using the optional PMK 100 mounting kit (part #70-217-01) as follows:

1. Remove rubber feet if they were previously installed on the bottom of the unit.
2. Attach the projector mounting brackets to the unit with the machine screws provided.
3. Secure the unit below the ceiling to a projector mount or other surface by inserting the mounting bolt through the bracket's slotted hole, as shown below.



**Mounting the YCV 100, VYC 100N, and VYC 100P on a projector mount**

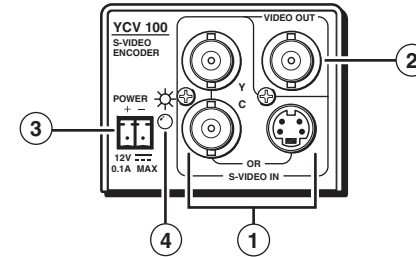
## Front Panel Features



- 1 **Power LED** — Lights to indicate that the YCV 100/VYC 100N/VYC 100P is on.

## Rear Panel Features and Cabling

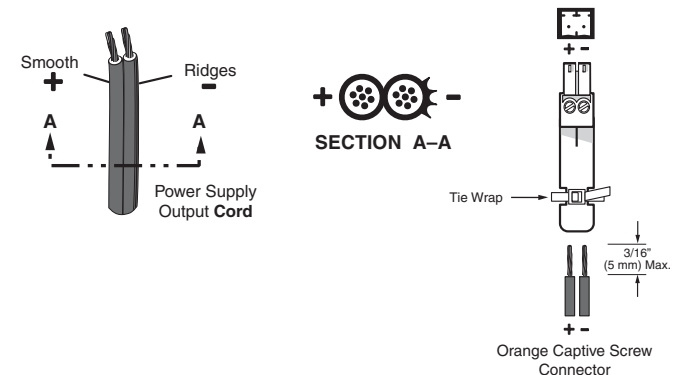
### YCV 100



- 1 **Input connectors** — Connect an S-video source to either:
  - the two female BNC connectors *or*
  - the 4-pin mini DIN connector.
- 2 **Output connector** — Connect a composite video output device to this female BNC connector.
- 3 **Power connector** — An external 12 V power supply is included with the unit. Plug it into this 2-pole captive screw connector. Wire the connector as shown below.

**NOTE** Do not connect S-video sources to both types of connectors at the same time.

**CAUTION** When connecting the power supply, voltage polarity is extremely important. Applying power with incorrect voltage polarity could damage the power supply and the YCV 100. Identify the power cord negative lead by the ridges on the side of the cord or a black heat shrink wrapping around it.



## Installation and Operation, cont'd

**NOTE** Strip the insulation from the wires to expose 5 mm (3/16") of the conductors. Do not tin the stripped power supply leads before installing the captive screw connector. Tinned wires are not as secure in the captive screw connectors and could be pulled out.

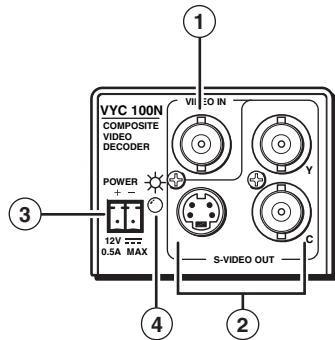
**WARNING** The two power cord wires must be kept separate while the power supply is plugged in. Remove power before wiring.

To verify the polarity before connection, check the no load power supply output with a voltmeter.

- ④ **Power LED** — Lights to indicate that the YCV 100 is on.

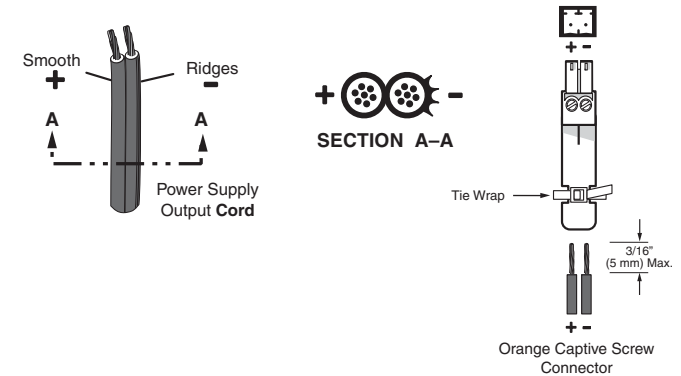
### VYC 100N and VYC 100P

**NOTE** The VYC 100N and VYC 100P have identical rear panel connectors.



- ① **Input connector** — Connect a composite video source to this female BNC connector.
- ② **Output connectors** — Connect an S-video output device to:
- the two female BNC connectors and/or
  - the 4-pin mini DIN connector.
- ③ **Power connector** — An external 12 V power supply is included with the unit. Plug it into this 2-pole captive screw connector. Wire the connector as shown in the following illustration.

**CAUTION** When connecting the power supply, voltage polarity is extremely important. Applying power with incorrect voltage polarity could damage the power supply and the VYC 100N/VYC 100P. Identify the power cord negative lead by the ridges on the side of the cord or a black heat shrink wrapping around it.



**NOTE** Strip the insulation from the wires to expose 5 mm (3/16") of the conductors. Do not tin the stripped power supply leads before installing the captive screw connector. Tinned wires are not as secure in the captive screw connectors and could be pulled out.

**WARNING** The two power cord wires must be kept separate while the power supply is plugged in. Remove power before wiring.

To verify the polarity before connection, check the no load power supply output with a voltmeter.

- ④ **Power LED** — Lights to indicate that the VYC 100N/VYC 100P is on.

### Troubleshooting

Possible problems and their solutions include the following:

- **Problem:** No power at unit  
**Solution:** Verify that the unit is receiving power by checking the front or rear LED. If no LED is lit, check the DC power plug termination and polarity.
- **Problem:** No video input  
**Solution:** Verify that the source and output devices are powered on and connected properly.
- **Problem:** Some chroma crawl on the vertical edges or a rainbow effect on some images  
**Solution:** This is a normal characteristic of the unit.



## YCV 100, VYC 100N, and VYC 100P

# Appendix A

## Specifications, Part Numbers, and Accessories

Specifications

Included Parts

Optional Accessories

# Specifications, Part Numbers, and Accessories

## Video

Gain .....	Unity
Bandwidth	
YCV 100 .....	8 MHz (-3 dB)
VYC 100N, VYC 100P .....	5.5 MHz (-5.5 dB)

## Video input

Number/signal type	
YCV 100 .....	1 S-video
VYC 100N, VYC 100P .....	1 composite video
Connectors	
YCV 100 .....	2 female BNC or 1 female 4-pin mini DIN
VYC 100N, VYC 100P .....	1 female BNC
Nominal level .....	1 Vp-p for Y of S-video, and for composite video 0.3 Vp-p for C of S-video
Minimum/maximum levels	
S-video .....	Analog: 0.3 V to 1.5 Vp-p for Y
Composite video .....	Analog: 0.3 V to 1.5 Vp-p with no offset
Impedance .....	75 ohms
Return loss .....	-35 dB @ 5 MHz
DC offset (max. allowable) .....	5 V

## Video output

Number/signal type	
YCV 100 .....	1 composite video
VYC 100N, VYC 100P .....	2 S-video
Connectors	
YCV 100 .....	1 female BNC
VYC 100N, VYC 100P .....	2 female BNCs or (1) 4-pin mini DIN
Nominal level .....	1 Vp-p for Y of S-video and for composite video 0.3 Vp-p for C of S-video
Minimum/maximum levels .....	0.3 V to 1.5 Vp-p for Y of S-video or composite video (follows input)
Impedance .....	75 ohms
Return loss .....	-40 dB @ 5 MHz
DC offset .....	±5 mV maximum with input at 0 offset

## Sync

Standards

VYC 100N .....	NTSC 3.58
VYC 100P .....	PAL
YCV 100 .....	NTSC 3.58, NTSC 4.43, PAL, SECAM

## General

External power supply .....	100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A (max.), regulated
Power input requirements	
VYC 100N, VYC 100P .....	12 VDC, 0.2 A
YCV 100 .....	12 VDC, 0.1 A
Temperature/humidity .....	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Rack mount .....	Yes, with optional 1U, 9.5" deep rack shelf, part #60-190-01 (RSU 129) or 60-604-01 (RSB 129); or VersaTools® 3.5" deep rack shelf, part #60-190-20 (RSF 123) or 60-604-21 (RSB 123) Furniture mountable with optional mini under-desk mounting kit, part #70-212-01 (MBU 123) Attachable to a projector mount with optional mounting kit, part #70-217-01 (PMK 100)
Enclosure type .....	Metal
Enclosure dimensions .....	1.7" H x 2.2" W x 3.0" D (1U high, one eighth rack wide) (4.3 cm H x 5.6 cm W x 7.6 cm D) (Depth excludes connectors.)
Product weight .....	0.4 lbs (0.2 kg)
Shipping weight .....	1 lbs (1 kg)
Vibration .....	ISTA 1A in carton (International Safe Transit Association)
Listings .....	UL, CUL
Compliances .....	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF .....	30,000 hours
Warranty .....	3 years parts and labor

**NOTE** All nominal levels are at ±10%.

**NOTE** Specifications are subject to change without notice.

## Specifications, Part Numbers, Accessories, cont'd

### Included Parts

These items are included in each order for a YCV 100, VYC 100N, or VYC 100P:

Included parts	Replacement part number
YCV 100	60-559-01
or VYC 100N	60-558-02
or VYC 100P	60-558-03
12 VDC, 1 A external power supply	70-055-01
IEC power cord	
3.5 mm, 2-pole captive screw connector	
Tweezer (small screwdriver)	
User's Manual	

### Optional Accessories

These items can be ordered separately:

Accessories	Part number
Mini under-desk mounting bracket	70-212-01
Mini projector mounting bracket	70-217-01
1U universal rack shelf kit	60-190-01
1U basic rack shelf	60-604-02
1U 6" deep universal rack shelf kit	60-190-10
1U 6" deep basic rack shelf	60-604-11
VersaTools rack shelf kit	60-190-20
VersaTools basic rack shelf	60-604-21
VersaTools back-of-the-rack mounting kit	70-367-01