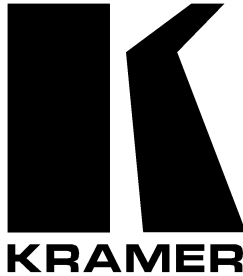


Kramer Electronics, Ltd.



USER MANUAL

Models:

WPN-11E, *XGA/Component/CV/YC Transmitter*

WPN-12E, *XGA/Component/CV/YC Receiver*

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1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 350-plus different models now appear in 8 Groups¹, which are clearly defined by function.

Congratulations on purchasing your Kramer **WPN-11E** and **WPN-12E** wall plates, which are suitable for the following applications:

- Board, conference and training rooms
- Presentation systems
- Signal distribution and home theater

In particular, the **WPN-11E** and **WPN-12E** are ideal when operating a projector via remote control. The package includes the following items:

- **WPN-11E** and/or **WPN-12E**
- This user manual²

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance high resolution cables³

3 Overview

The **WPN-11E** and the **WPN-12E** constitute an XGA / Component / RGB / CV / YC Transmitter and Receiver set. The **WPN-11E** and the **WPN-12E** are ideal for operating a projector via remote control. You can connect these sources: YUV, RGB, CV, Y/C, XGA to the **WPN-11E** wall plate, and connect the YUV, RGB, CV, Y/C, XGA outputs from the **WPN-12E** wall plate to the appropriate inputs on a projector.

1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Sealers; and GROUP 8: Cables and Connectors

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

3 The complete list of Kramer cables is on our Web site at <http://www.kramerelectronics.com>

The Kramer **WPN-11E** wall plate includes:

- An XGA input (up to UXGA resolution) on a standard HD-15 connector
- A set of RCA connectors that can be used for component video¹/RGB, s-Video (Y/C), or composite video
- A button for selecting Video² or XGA
- OUTPUT TO LINE terminal block connectors that connect to the corresponding INPUT FROM LINE terminal block connectors on the **WPN-12E** using the optional BC-5X5S cable³
- A standard 12 Volt DC feed that lets the **WPN-12E** derive its power via the power supply of the **WPN-11E**. The system can be powered from either the **WPN-11E** or **WPN-12E**⁴

The Kramer **WPN-12E** wall plate includes:

- An XGA output on a standard HD-15 connector
- A set of RCA connectors that can be used for component¹ video/RGB, s-Video (Y/C), or composite video
- INPUT FROM LINE terminal block connectors that connect to the corresponding OUTPUT TO LINE terminal block connectors on the **WPN-11E** using the optional BC-5X5S cable³

The BC-5X5S cable³ (not supplied⁵) is very flexible, letting you run different channels on the single cable—component video/RGB, s-Video (Y/C), composite video, audio, DC and so on. It has 5 coax (conductor and shield) cables (red, green, blue, yellow, and black), and 5 thin wires (red and black, as well as yellow, brown and orange).

Achieving the best performance means:

- Connecting only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Positioning your **WPN-11E** and/or **WPN-12E** Kramer wall plate securely, and away from moisture, excessive sunlight and dust

1 Sometimes called YUV, or Y, B-Y, R-Y, or Y, Pb/Cb, and Pr/Cr

2 Component/RGB/composite/s-Video (Y/C)

3 See section 4.4

4 The WPN-11E is a passive tool that sends out power but does not use it

5 Available in various lengths

4 Your Component/RGB/YC/CV/XGA Transmitter and Receiver

This section describes the **WPN-11E**, the **WPN-12E**, and the **BC-5X5S** Cable (optional) **PINOUT**.

4.1 Your WPN-11E

Figure 1 and Table 1 define the **WPN-11E**:

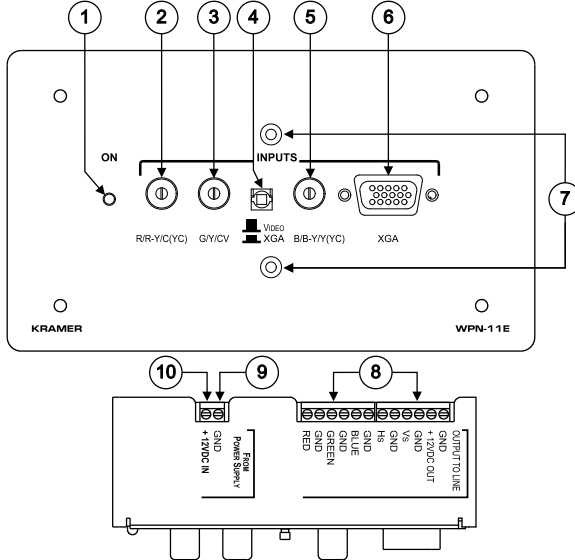


Figure 1: WPN-11E (Front Panel and Side Panel)

Table 1: WPN-11E Features

#	Feature	Function
1	ON LED	Illuminates when receiving power
2	R/R-Y/C(YC) IN RCA Connector	Connects to the RGB/component video/s-Video ² source
3	G/Y/CV IN RCA Connector	Connects to the RGB/component video/composite video source
4	VIDEO (COMP/CV/YC) or XGA Select Button	Push in to select XGA; release to select component video/RGB ¹ , or composite video, or s-Video
5	B/B-Y/Y(YC) IN RCA Connector	Connects to the RGB/component video/s-Video ² source
6	XGA INPUT HD15 Connector	Connects to the computer graphics source
7	Holes (2)	For fastening the wall plate in place
8	OUTPUT TO LINE Terminal Block Connectors	Connects to the corresponding INPUT FROM LINE terminal block connectors using the optional BC-5X5S cable (see section 4.4)
9	GND PIN	Connects (-) to the Ground
10	+12VDC IN PIN	Connects (+) to the connector for powering the unit

¹ With sync on green

² Made up of the Y on the B/B-Y/Y(YC) connector together with the C on the R/R-Y/C(YC) connector

4.2 Your WPN-12E

Figure 2 and Table 2 define the **WPN-12E**:

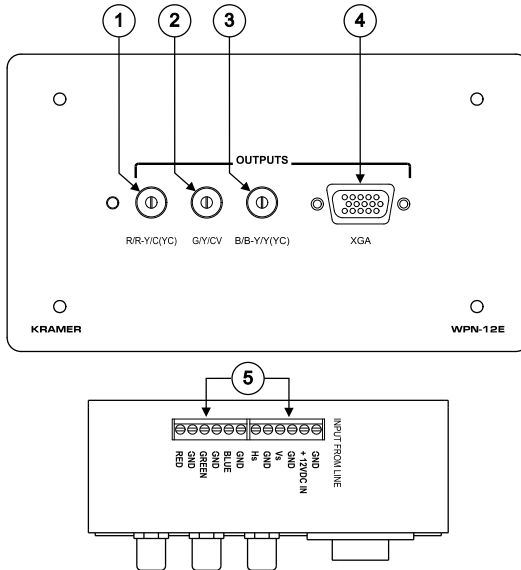


Figure 2: WPN-12E (Front Panel and Side Panel)

Table 2: WPN-12E Features

#	Feature	Function
1	R/R-Y/C(YC) OUT RCA Connector	Connects to the RGB/component video/s-Video ¹ acceptor
2	G/Y/CV OUT RCA Connector	Connects to the RGB/component video/composite video acceptor
3	B/B-Y/Y(YC) OUT RCA Connector	Connects to the RGB/component video/s-Video ¹ acceptor
4	XGA OUTPUT HD15 Connector	Connects to the computer graphics acceptor
5	INPUT FROM LINE Terminal Block Connectors	Connects to the corresponding OUTPUT TO LINE terminal block connectors using the optional BC-5X5S cable (see section 4.4)

¹ Made up of the Y on the B/B-Y/Y(YC) connector together with the C on the R/R-Y/C(YC) connector

4.3 WPN-11E and WPN-12E (3-D illustrations)

Figure 3 illustrates 3-D illustrations of the **WPN-11E** and **WPN-12E**:

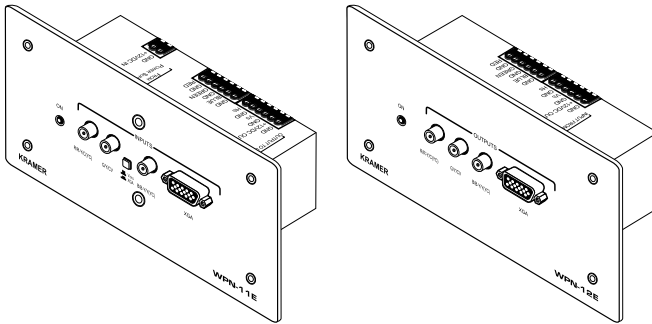


Figure 3: WPN-11E and WPN-12E (3-D Illustrations)

4.4 Your BC-5X5S Cable PINOUT

Figure 4 defines the optional BC-5X5S cable:

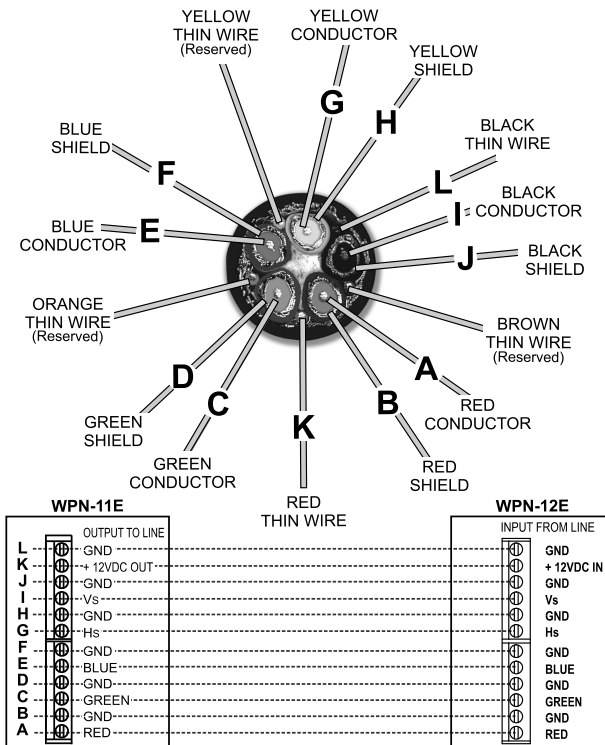


Figure 4: BC-5X5S Cable PINOUT

5 Using the Component/RGB/YC/CV/XGA Transmitter and Receiver

You can use your **WPN-11E** and **WPN-12E**, for example, in a conference room, as the example in Figure 5 illustrates. For details of how to:

- Install your **WPN-11E** and **WPN-12E**, see section 5.1
- Operate your **WPN-11E** and **WPN-12E**, see section 5.2

5.1 Installing the WPN-11E and WPN-12E

To install your **WPN-11E** and **WPN-12E**:

1. Connect the **WPN-11E** OUTPUT TO LINE terminal block connectors to the **WPN-12E** INPUT FROM LINE terminal block connectors, using the optional BC-5X5S cable.
2. On the **WPN-11E**, connect your 12V DC power supply to the *FROM POWER SUPPLY* pins¹, taking care that **polarity is correct**.
3. Insert the **WPN-11E** and **WPN-12E** directly into the wall box opening, and then mount the front panel securely using the screws.

5.2 Operating the WPN-11E and WPN-12E

To operate your **WPN-11E** and **WPN-12E**, as the example in Figure 5 illustrates:

1. On the **WPN-11E**:
 - Connect your XGA source (for example, a laptop's graphics card) to the XGA INPUT HD15F connector
 - Connect your component video² source (for example, a set top box) to the B/B-Y/Y(YC), G/Y/CV, and R/R-Y/C(YC) IN RCA connectors³
 - Push in the button to select the XGA source; or release it to select the VIDEO⁴ source
2. On the **WPN-12E**:
 - Connect the XGA OUTPUT HD15F connector to the XGA input on the projector
 - Connect the B/B-Y/Y(YC), G/Y/CV, and R/R-Y/C(YC) OUT RCA connectors to the YUV input on the projector

1 Connect the wire labeled "+" to the +12VDC IN pin, and the wire labeled "-" to the GND pin

2 Sometimes called YUV, or Y, B-Y, R-Y, or Y, Pb/Cb, and Pr/Cr

3 You could also connect an RGB source to the B/B-Y/Y(YC), G/Y/CV, and R/R-Y/C(YC) IN RCA connectors, or a Y/C source to the B/B-Y/Y(YC) and R/R-Y/C(YC) IN RCA connectors, or a composite video source to the G/Y/CV IN RCA connector

4 Component/RGB/composite/s-Video (Y/C)

- Connect the B/B-Y/Y(YC), G/Y/CV, and R/R-Y/C(YC) OUT RCA connectors to the RGB input on the projector
- Connect the B/B-Y/Y(YC) and R/R-Y/C(YC) OUT RCA connectors to the s-Video input on the projector
- Connect the G/Y/CV OUT RCA connector to the composite video input on the projector

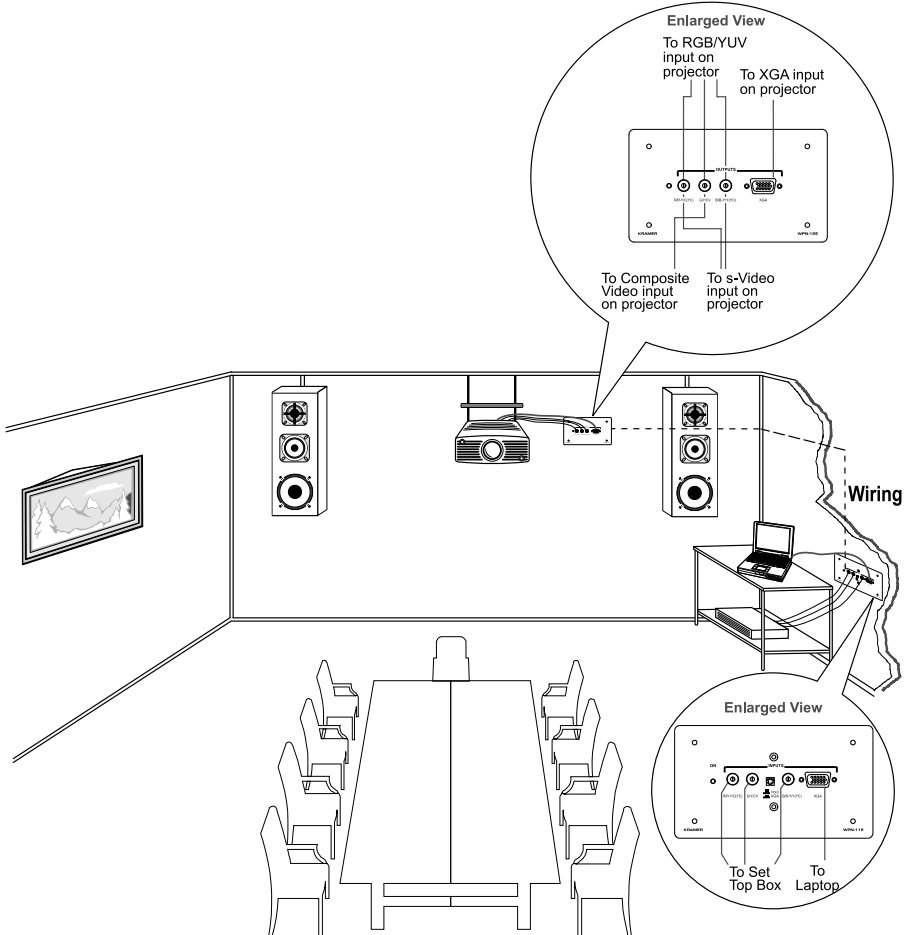


Figure 5: Example of Conference Room WPN-11E / WPN-12E Installation

6 Technical Specifications

Table 3 defines the technical specifications¹:

Table 3: Technical Specifications² of the WPN-11E / WPN-12E

INPUTS:	WPN-11E: 1 XGA on an HD15F connector; 1 composite video 1 Vpp/75Ω, 1 s-Video, 1 Vpp/75Ω (Y), 0.3Vpp/75Ω (C), YUV / RGB (on RCA connectors) WPN-12E: INPUT FROM LINE on terminal block connectors
OUTPUTS:	WPN-11E: OUTPUT TO LINE on terminal block connectors WPN-12E: 1 XGA on an HD15F connector; 1 composite video 1 Vpp/75Ω, 1 s-Video, 1 Vpp/75Ω (Y), 0.3Vpp/75Ω (C), YUV / RGB (on RCA connectors)
MAX. OUTPUT LEVEL:	2.6Vpp
BANDWIDTH (-3dB):	450MHz, Fully Loaded
DIFF. GAIN:	0.05%
DIFF. PHASE:	0.05 Deg.
K-FACTOR:	<0.05%
S/N RATIO:	74dB
CROSTALK (all hostile):	-56dB
COUPLING:	DC
POWER SOURCE:	12 VDC, 110mA
DIMENSIONS:	11.4 cm x 4.3cm x 6.9cm (4.49" x 1.70" x 2.72", W, D, H)
WEIGHT:	0.3 kg (0.67 lbs.) approx
ACCESSORIES:	Power supply
OPTIONS:	BC-5X5S Cable

¹ Specifications for 30m of CAT5 UTP cable, unless otherwise specified

² Specifications are subject to change without notice

LIMITED WARRANTY

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for seven years from the date of the first customer purchase.

WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
 - ii) Product modification, or failure to follow instructions supplied with the product
 - iii) Repair or attempted repair by anyone not authorized by Kramer
 - iv) Any shipment of the product (claims must be presented to the carrier)
 - v) Removal or installation of the product
 - vi) Any other cause, which does not relate to a product defect
 - vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

NOTE: All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

- EN-50081: "Electromagnetic compatibility (EMC);
generic emission standard.
Part 1: Residential, commercial and light industry"
- EN-50082: "Electromagnetic compatibility (EMC) generic immunity standard.
Part 1: Residential, commercial and light industry environment".
- CFR-47:
FCC Rules and Regulations:
Part 15: "Radio frequency devices
Subpart B – Unintentional radiators"

CAUTION!

- ☒ Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- ☒ Use the supplied DC power supply to feed power to the machine.
- ☒ Please use recommended interconnection cables to connect the machine to other components.





For the latest information on our products and a list of Kramer distributors, visit our Web site: www.kramerelectronics.com, where updates to this user manual may be found. We welcome your questions, comments and feedback.



Caution

Safety Warning:
Disconnect the unit from the power supply before opening/servicing.



Kramer Electronics, Ltd.

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P/N: 2900-000038 REV 1