Kramer Electronics, Ltd.

USER MANUAL

Models:

SV-301 ***Wall Plate***
SV-301xl ***Wall Plate***
SV-302 ***Wall Plate***
SV-303 ***Wall Plate***
SV-304 ***Wall Plate***
SV-305 ***Wall Plate***
SV-306 ***Wall Plate***
SV-307 ***Wall Plate***

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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 **SV-301**, **SV-301xl**, **SV-302, SV-303, SV-304, SV-305, SV-306**, and/or **SV-307** *Wall Plate* device. Each is designed to work as an integral part of Kramer's A/V SummitView™ Kit or in some cases as a standalone transmitter for a Kramer TP receiver.

The package includes:

- One of the following items: **SV-301**, **SV-301xl**, **SV-302**, **SV-303**, **SV-304**, **SV-305**, **SV-306**, or **SV-307** *Wall Plate*
- This user manual[2]

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original boxes and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance, high resolution cables[3] as recommended in Section 9

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 the latest version from http://www.kramerelectronics.com

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

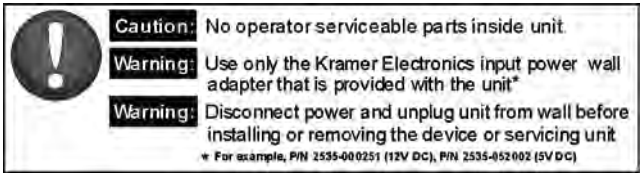
3 Overview

This user manual describes the:

- **SV-301** provided as the default wall plate with the **SV-551** *SummitView™ Essentials Kit* and described in that user manual, as well as in Section 4.1 (U.S. version) and Section 5.1 (U.K. and European version)
- **SV-301xl** provided as the default wall plate with the **SV-552** *SummitView™ Essentials Kit* and described in that user manual, as well as in Section 4.2 (U.S. version) and Section 5.2 (U.K. and European version)
- **SV-302** provided as the default wall plate with the **SV-551** and **SV-552** *SummitView™ Essentials Kit* and described in that user manual, as well as in Section 4.3 (U.S. version) and Section 5.3 (U.K. and European version)
- **SV-303** (Section 4.4 U.S. version, Section 5.4 U.K. and European version)
- **SV-304** (Section 4.5 U.S. version, Section 5.5 U.K. and European version)
- **SV-305** (Section 4.6 U.S. version, Section 5.6 U.K. and European version)
- **SV-306** (Section 4.7 U.S. version, Section 5.7 U.K. and European version)
- **SV-307** (Section 4.8 U.S. version)

To achieve the best performance:

- Connect 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)
- Avoid interference from neighboring electrical appliances and position your Kramer wall plate away from moisture, excessive sunlight and dust



3.1 Shielded Twisted Pair and Unshielded Twisted Pair

We recommend that you use Shielded Twisted Pair (STP) cable. There are different grades of STP cable available, and we advise you to use the best quality STP cable that you can afford. Our non-skew-free cable, Kramer **BC-STP** is intended for digital signals and for analog signals where skewing is not an issue. For cases where skewing occurs, our UTP skew-free cable, Kramer **BC-XTP**, should be used. Bear in mind, though, that we advise using STP cables where possible, since the compliance to electromagnetic interference has been tested using STP cables.

Although Unshielded Twisted Pair (UTP) cable might be preferred for long range applications, UTP cable should be installed as far as possible from electric cables, motors, and so on, as these devices tend to create electromagnetic interference. However, since the use of UTP cable might not conform to electromagnetic standards, Kramer does not commit to meeting the standard with UTP cable.

4 Defining the Wall Plates (U.S. Versions)

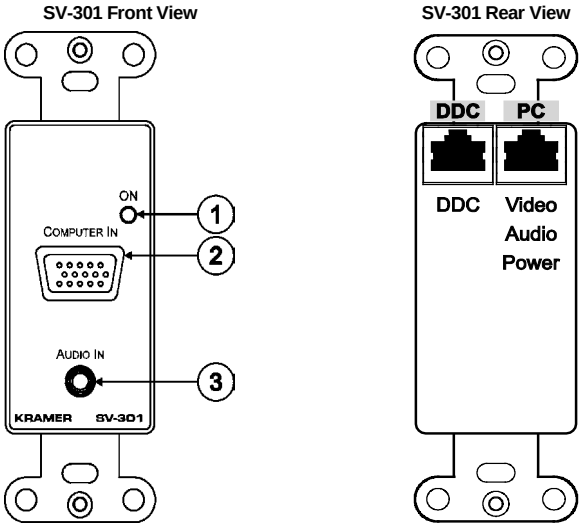
This section defines the U.S. version of the following wall plates:

- **SV-301** (Section 4.1)
- **SV-301xl** (Section 4.2)
- **SV-302** (Section 4.3)
- **SV-303** (Section 4.4)
- **SV-304** (Section 4.5)
- **SV-305** (Section 4.6)
- **SV-306** (Section 4.7)
- **SV-307** (Section 4.8)

4.1 SV-301 (U.S.)

The **SV-301** is a single-gang wall plate insert. Table 1 defines the front and rear views of the **SV-301.**

Table 1: Defining the SV-301 (U.S.)



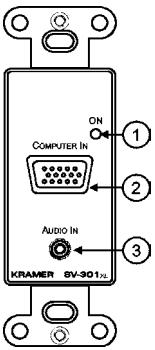
#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPUTER IN* 15-pin HD Connector	Connect to the computer graphics source
3	*AUDIO IN* 3.5mm Mini Connector	Connect to the audio source

4.2 SV-301xl (U.S.)

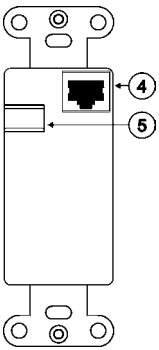
The **SV-301xl** is a single-gang wall plate insert. EDID information can be stored in the wall plate by using the **FC-200** *XGA EDID Copier* Kramer Tool (see the **FC-200** *XGA EDID Copier* User Manual). Table 2 defines the front and rear views of the **SV-301xl**.

Table 2: Defining the SV-301xl (U.S.)

SV-301xl Front View



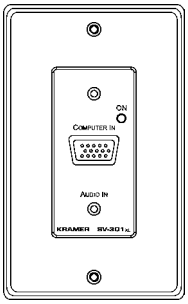
SV-301xl Rear View



#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPUTER IN* 15-pin HD Connector	Connect to the computer graphics source
3	*AUDIO IN* 3.5mm Mini Connector	Connect to the audio source
4	RJ-45 Connector	Connect to the SV-551/SV-552 Processor/Controller
5	DC IN Power Connector	Connect to an optional 12V power supply

Table 3 defines the **SV-301xl**, as an example, in its plastic frame.

Table 3: Wall Plate (U.S.) Enclosed in its Plastic Frame[1]

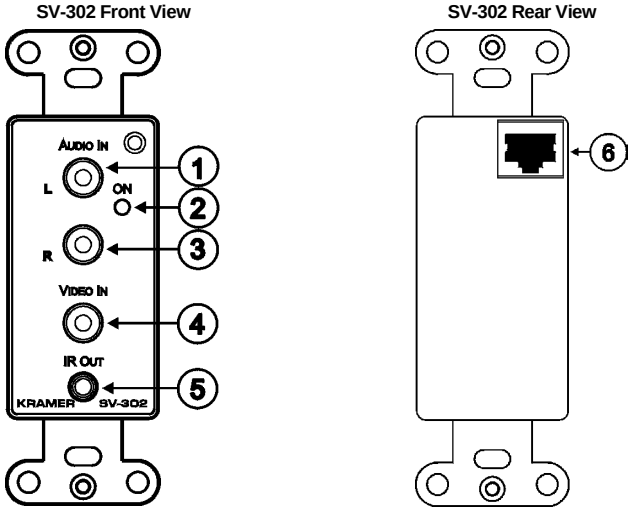


1 Each model that is designed specifically for the U.S. market can be mounted inside a plastic frame

4.3 SV-302 (U.S.)

The **SV-302** is a single-gang wall plate insert. Table 4 defines the front and rear views of the **SV-302.**

Table 4: Defining the SV-302 (U.S.)

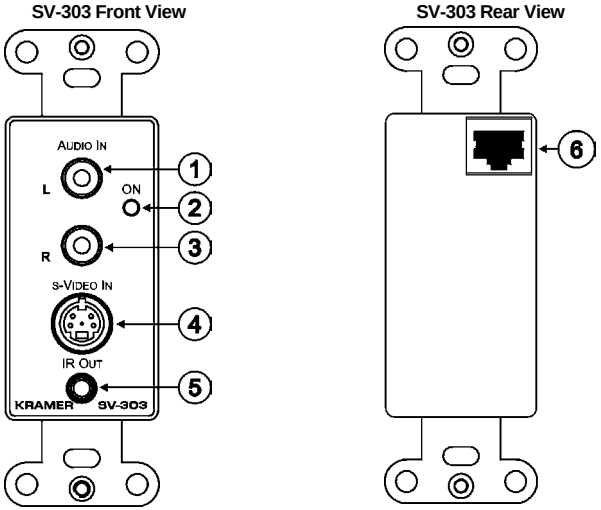


#	Feature	Function
1	*L AUDIO IN* RCA Connector	Connect to the left analog audio source
2	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
3	*R AUDIO IN* RCA Connector	Connect to the right analog audio source
4	*VIDEO IN* RCA Connector	Connect to the composite video source
5	*IR OUT* 3.5mm Mini Connector	Connect to a machine via an IR Emitter
6	RJ-45 Connector	Connect to the SV-551/SV-552 Processor/Controller

4.4 SV-303 (U.S.)

The **SV-303** is a single-gang wall plate insert. Table 5 defines the front and rear views of the **SV-303.**

Table 5: Defining the SV-303 (U.S.)

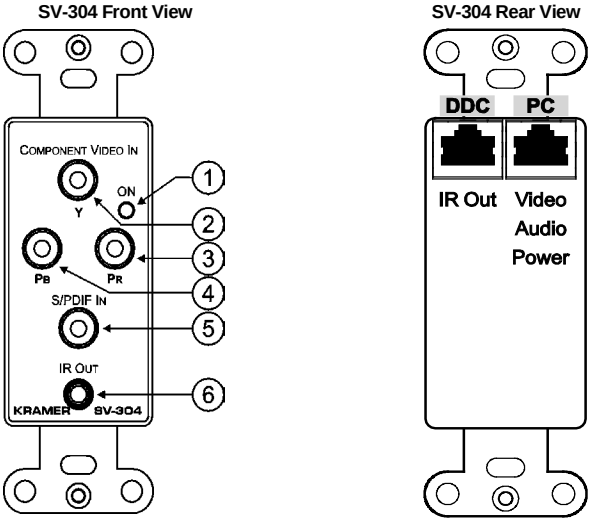


#	Feature	Function
1	*L AUDIO IN* RCA Connector	Connect to the left analog audio source
2	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
3	*R AUDIO IN* RCA Connector	Connect to the right analog audio source
4	*s-VIDEO IN* 4-pin Connector	Connect to he s-Video source
5	*IR OUT* 3 5mm Mini Connector	Connect to a machine via an IR Emitter
6	RJ-45 Connector	Connect to he SV-551 Processor/Controller

4.5 SV-304 (U.S.)

The **SV-304** is a single-gang wall plate insert. Table 6 defines the front and rear views of the **SV-304.**

Table 6: Defining the SV-304 (U.S.)

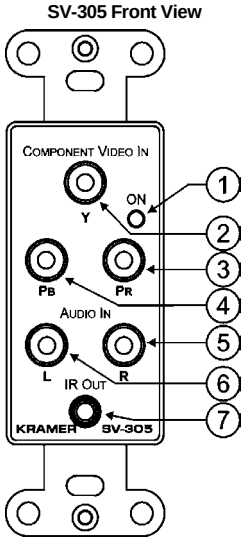


#	Feature		Function
1	*ON* LED		Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPONENT VIDEO IN* RCA Connectors	*Y*	Connect to the component video source
3		*PR*	
4		*PB*	
5	*S/PDIF IN* RCA Connector		Connect to the digital audio source
6	*IR OUT* 3.5mm Mini Connector		Connect to a machine via an IR Emitter

4.6 SV-305 (U.S.)

The **SV-305** is a single-gang wall plate insert. Table 7 defines the front and rear views of the **SV-305**.

Table 7: Defining the SV-305 (U.S.)



#	Feature	Function	
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal	
2	*COMPONENT VIDEO IN* RCA Connectors	*Y*	Connect to the component video source
3		*PR*	
4		*PB*	
5	*R AUDIO IN* RCA Connector	Connect to the right analog audio source	
6	*L AUDIO IN* RCA Connector	Connect to the left analog audio source	
7	*IR OUT* 3.5mm Mini Connector	Connect to a machine via an IR Emitter	

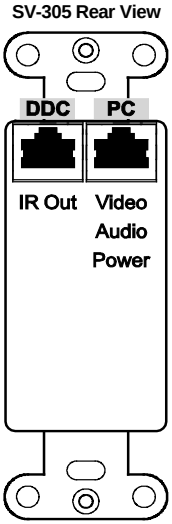
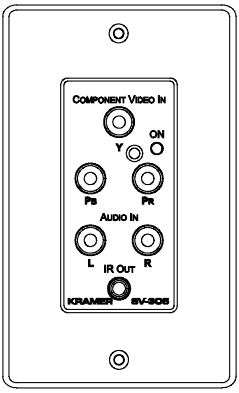


Table 8 defines the **SV-305**, as an example, in its plastic frame:

Table 8: Wall Plate (U.S.) Enclosed in its Plastic Frame[1]



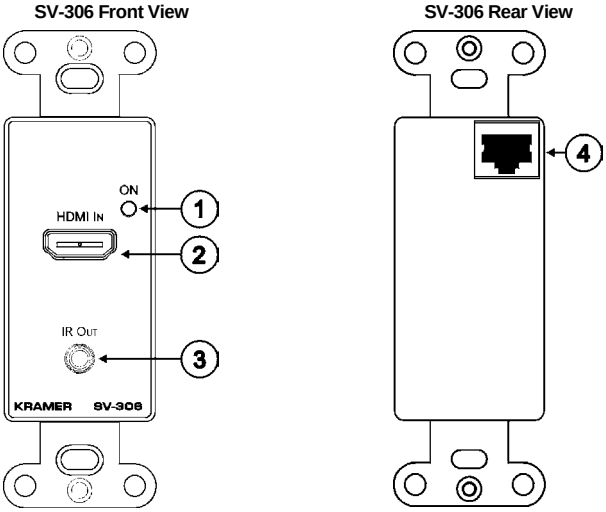
1 Each model that is designed specifically for the US market can be mounted inside a plastic frame

4.7 SV-306 (U.S.)

The **SV-306** is a single-gang wall plate insert. Table 9 defines the front and rear views of the **SV-306**.

Note: The **SV-306** uses special twisted pair cable (see Section 6.1).

Table 9: Defining the SV-306 (U.S.)



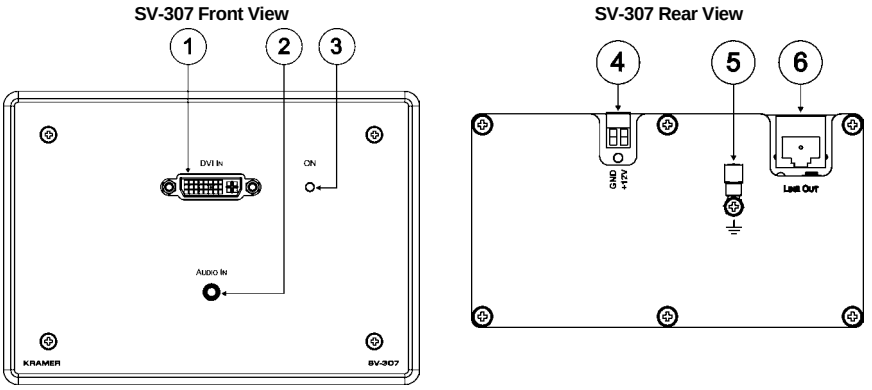
#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*HDMI IN* Connector	Connect to the HDMI digital source
3	*IR OUT* 3.5mm Mini Connector	Connect to a machine via an IR Emitter
4	RJ-45 Connector	Connect to the SV-552 Processor/Controller. Note hat the SV-306 requires BC-DGKat524 or BC-DGKat-623 cable for connection

4.8 SV-307 (U.S.)

The **SV307** is a triple-gang wall plate. Table 10 defines the front and rear views of the **SV-307**.

Note: The **SV-307** uses special twisted pair cable (see Section 6.1).

Table 10: Defining the SV-307 (U.S.)



#	Feature	Function
1	*DVI IN* Connector	Connect to the DVI source
2	*AUDIO IN* 3.5mm Mini Connector	Connect to the audio source
3	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
4	*GND +12V* 2-pin Power Terminal Block	Connect to an optional 12V power supply
5	*GROUND* Connection	Ring tongue terminal and grounding screw
6	*LINE OUT* RJ-45 Connector	Connect to he SV-552 Processor/Controller. Note that the SV-307 requires BC-DGKat524 or BC-DGKat-623 cable for connection

5 Defining the Wall Plates (U.K. and Europe)

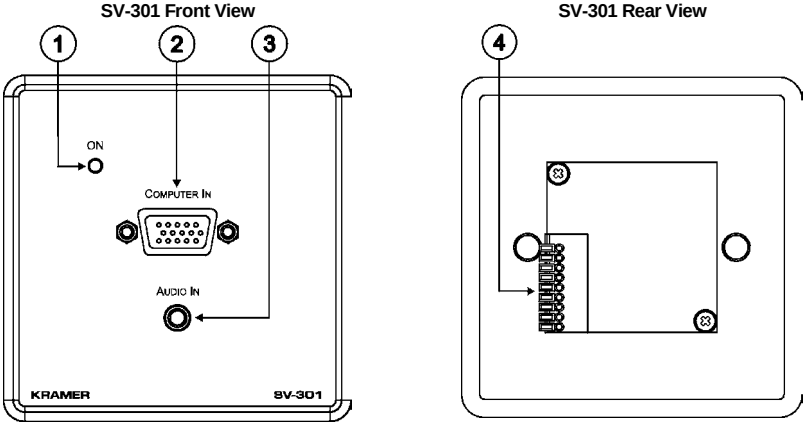
This section defines the U.K. and European version of the following wall plates:

- **SV-301** (Section 5.1)
- **SV-301xl** (Section 5.2)
- **SV-302** (Section 5.3)
- **SV-303** (Section 5.4)
- **SV-304** (Section 5.5)
- **SV-305** (Section 5.6)
- **SV-306** (Section 5.7)

5.1 SV-301 (U.K. and Europe)

The **SV-301** is a single-gang wall plate and has one terminal block at the rear. Table 11 defines the front and rear views of the **SV-301**.

Table 11: Defining the SV-301 (U.K. and Europe)[1]



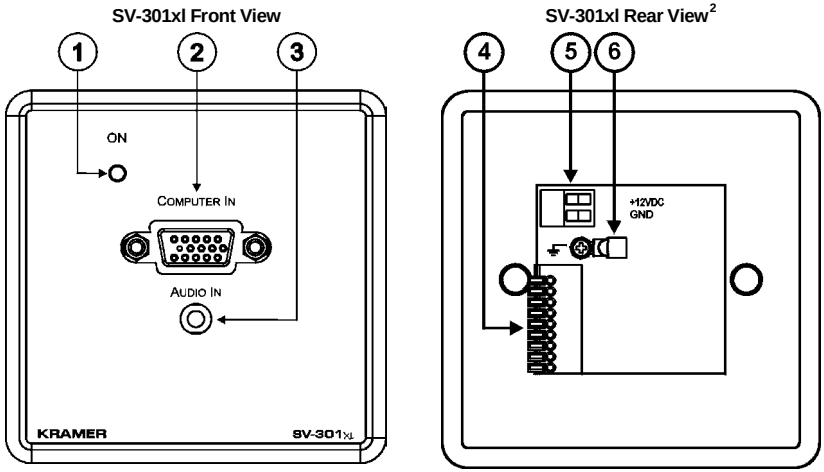
#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPUTER IN* 15-pin HD Connector	Connect to the computer graphics source
3	*AUDIO IN* 3.5mm Mini Connector	Connect to the audio source
4	Terminal Block	Connect to SV-551/SV-552 Processor/Controller

1 When mounting in Belgium and Germany, use the standard WP Adapter

5.2 SV-301xl (U.K. and Europe)

The **SV-301xl** is a single-gang wall plate and has one terminal block at the rear. EDID information can be stored in the wall plate by using the Kramer **FC-200** *XGA EDID Copier* (see the **FC-200** *XGA EDID Copier* User Manual). Table 12 defines the front and rear views of the **SV-301xl**.

Table 12: Defining the SV-301xl (U.K. and Europe)[1]



#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPUTER IN* 15-pin HD Connector	Connect to the computer graphics source
3	*AUDIO IN* 3.5mm Mini Connector	Connect to the audio source
4	Terminal Block	Connect to SV-551/SV-552 Processor/Controller
5	*+12V GND* 2-pin Power Terminal Block	Connect to an optional 12V power supply
6	*GROUND* Connection	Ring tongue terminal and grounding screw

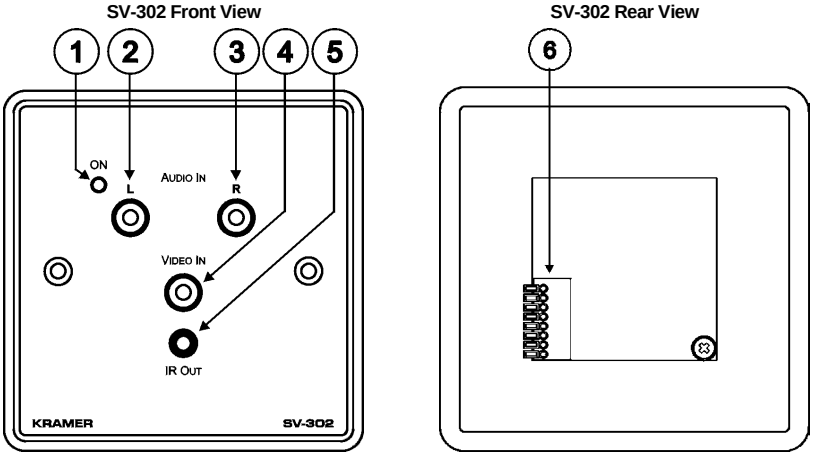
1 When mounting in Belgium and Germany, use the standard WP Adapter

2 Some models may have a DC IN connector

5.3 SV-302 (U.K. and Europe)

The **SV-302** is a single-gang wall plate and has one terminal block at the rear. Table 13 defines the front and rear views of the **SV-302**.

Table 13: Defining the SV-302 (U.K. and Europe)[1]



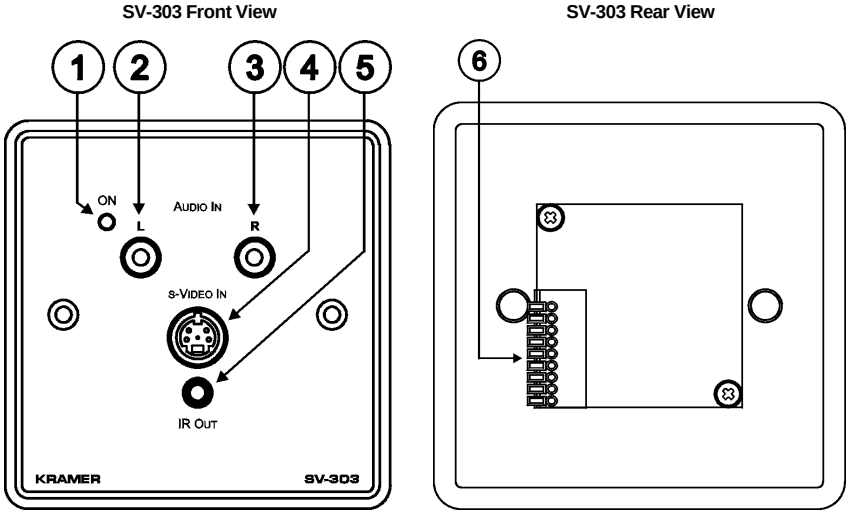
#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*L AUDIO IN* RCA Connector	Connect to the left analog audio source
3	*R AUDIO IN* RCA Connector	Connect to the right analog audio source
4	*VIDEO IN* RCA Connector	Connect to he composite video source
5	*IR OUT* 3.5mm Mini Connector	Connect to a machine via an IR Emitter
6	Terminal Block	Connect to SV-551/SV-552 Processor/Controller

1 When mounting in Belgium and Germany, use the standard WP Adapter

5.4 SV-303 (U.K. and Europe)

The **SV-303** is a single-gang wall plate and has one terminal block at the rear. Table 14 defines the front and rear views of the **SV-303**.

Table 14: Defining the SV-303 (U.K. and Europe)[1]



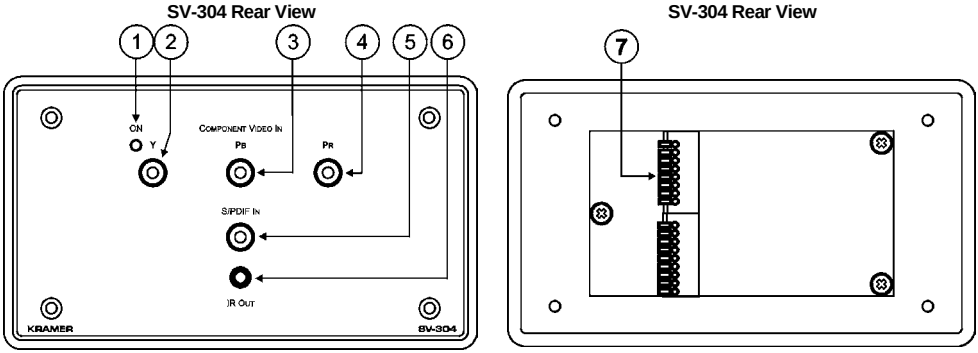
#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*L AUDIO IN* RCA Connector	Connect to he left analog audio source
3	*R AUDIO IN* RCA Connector	Connect to he right analog audio source
4	*s-VIDEO IN* 4-pin Connector	Connect to he s-Video source
5	*IR OUT* 3 5mm Mini Connector	Connect to a machine via an IR Emitter
6	Terminal Block	Connect to SV-551 Processor/Controller

1 When mounting in Belgium and Germany, use the standard WP Adapter

5.5 SV-304 (U.K. and Europe)

The **SV-304** is a dual-gang wall plate and has two terminal blocks at the rear. Table 15 defines the front and rear views of the **SV-304**.

Table 15: Defining the SV-304 (U.K. and Europe) [1]



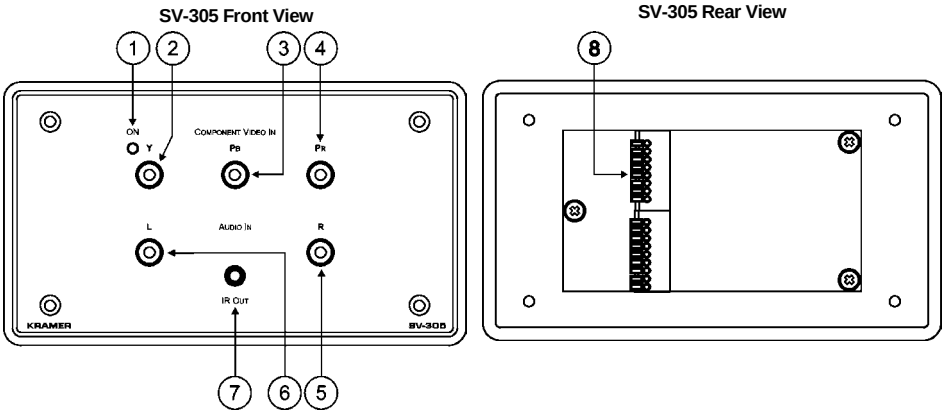
#	Feature		Function
1	*ON* LED		Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPONENT VIDEO IN* RCA Connectors	*Y*	Connect to the component video source
3		*PB*	
4		*PR*	
5	*S/PDIF IN* RCA Connector		Connect to the digital audio source
6	*IR OUT* 3.5mm Mini Connector		Connect to a machine via an IR Emitter
7	2 Terminal Blocks		Connect to SV-551 Processor/Controller

1 When mounting in Belgium and Germany, use the standard WP Adapter

5.6 SV-305 (U.K. and Europe)

The **SV-305** is a dual-gang wall plate and has two terminal blocks at the rear. Table 16 defines the front and rear views of the **SV-305**.

Table 16: Defining the SV-305 (U.K. and Europe)[1]



#	Feature		Function
1	*ON* LED		Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*COMPONENT VIDEO IN RCA Connectors*	*Y*	Connect to the component video source
3		*PB*	
4		*PR*	
5	*R AUDIO IN* RCA Connector		Connect to the right analog audio source
6	*L AUDIO IN* RCA Connector		Connect to the left analog audio source
7	*IR OUT* 3.5mm Mini Connector		Connect to a machine via an IR Emitter
8	2 Terminal Blocks		Connect to SV-551 Processor/Controller

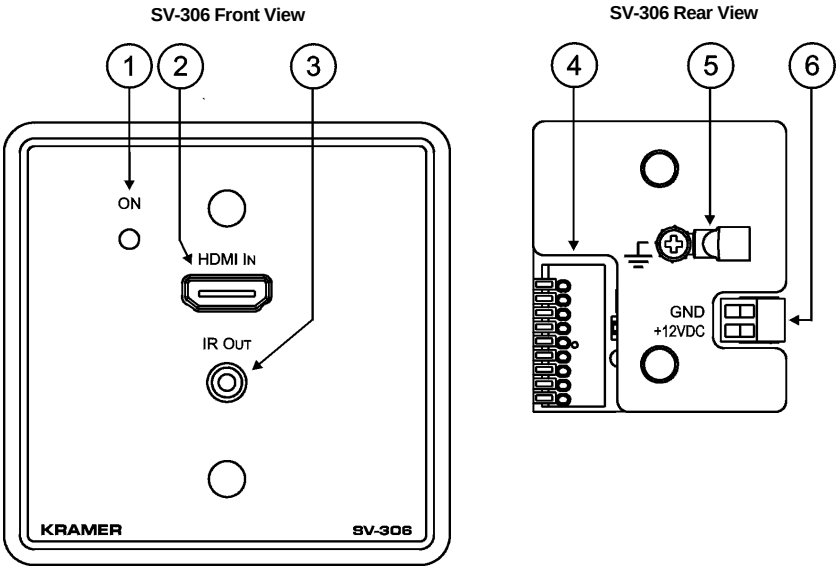
1 When mounting in Belgium and Germany, use the standard WP Adapter

5.7 SV-306 (U.K. and Europe)

The **SV-306** is a single-gang wall plate. Table 17 defines the front and rear views of the **SV-306**.

Note: The **SV-306** uses special twisted pair cable (see Section 6.1).

Table 17: Defining the SV-306 (U.K. and Europe)[1]



#	Feature	Function
1	*ON* LED	Lights red when receiving power (when no signal is detected); lights green when receiving a signal
2	*HDMI IN* Connector	Connect to the HDMI digital source
3	*IR OUT* 3.5mm Mini Connector	Connect to a machine via an IR Emitter
4	Terminal Block	Connect to SV-552. Note that the SV-306 requires BC-DGKat524 or BC-DGKat-623 cable for connection
5	*GROUND* Connection	Ring tongue terminal and grounding screw
6	*GND +12V* 2-pin Power Terminal Block	Connect to an optional 12V power supply

1 When mounting in Belgium and Germany, use the standard WP Adapter

6 Wiring the Rear Wall plate Connectors

STP cabling of 50' (15.24m)[1] in length is provided (**SV-301**/**302**) with the Kramer A/V SummitView™ Kits[2]. When required, longer STP cabling can be used when purchased for standalone wall plates but we recommend a maximum transmission range of up to 100' (30.48m). Exceeding the recommended distance may result in reduced image quality.

Note: For cabling the **SV-306** and **SV-307** wall plates, use either Kramer **BCP-DGKat524** or **BCP-DGKat623** (see Section 9.1).

This section describes how to connect the rear panel for the:

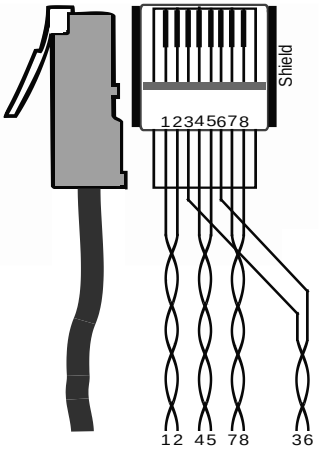
- US wall plate versions (see Section 6.1)
- European wall plate versions (see Section 6.2)

6.1 Wiring the CAT 5 LINE IN/LINE OUT RJ-45 Connector

The US versions of the SV wall plates are equipped with RJ-45 terminals. Table 18 defines the STP pinout using a straight pin to pin cable with RJ-45 connectors. For STP cable, cable shielding must be connected/soldered to the connector shield.

Table 18: CAT 5 Pinout (U.S.)

EIA /TIA 568B	
PIN	**Wire Color**
1	Orange/White
2	Orange
3	Green/White
4	Blue
5	Blue/White
6	Green
7	Brown/White
8	Brown
Pair 1	4 and 5
Pair 2	1 and 2
Pair 3	3 and 6
Pair 4	7 and 8



1 Plenum-rated for the SummitView™ US version; non-plenum for the SummitView™ Europe

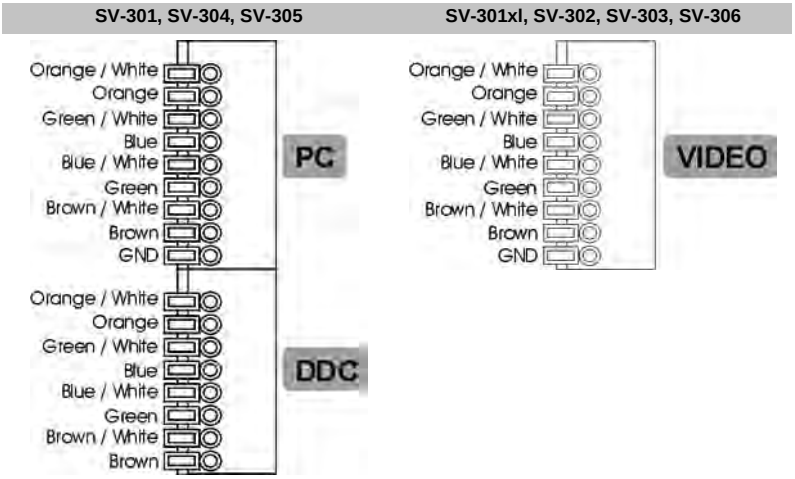
2 Or should be purchased separately for a standalone machine, see Table 21 for reference

6.2 Wiring the U.K. and European Terminal Blocks

The European wall plates are equipped with an easy plug-in terminal block to attach the CAT 5 cables. Follow the colors of the color-coded sticker on these terminals for proper connection of the CAT 5 cable.

Table 19 defines the pinouts for the terminal block.

Table 19: Terminal Block Pinouts (U.K. and Europe)



Notes:

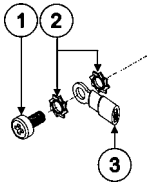
- The PC and Video terminal blocks have 9 contacts and the DDC terminal block has 8 contacts
- Use the connector clips when removing the wires, not when inserting them
- Each wire protrudes 9mm in length from the plastic insulation so that it can be easily connected. To prevent the wires crossing, be sure that each wire is completely inserted
- The cable Ground shielding must be connected / soldered to the connector shield

7 Grounding the Wall Plate

The grounding screw is used to earth the chassis of the unit to the ground of the building, thus preventing static electricity from interfering with the product's performance.

Table 20 defines the grounding screw components.

Table 20: Grounding Screw, Lock Washers and Ring Tongue Terminal



#	Item
1	M3X6 screw
2	1/8" Toothed Lock Washer
3	M3 Ring Tongue Terminal

To ground a wall plate:

1. Connect the Ring Tongue terminal to the building grounding point wire (it is recommended to use a green-yellow AWG#18 wire, crimped with a proper hand-tool).
2. Insert the M3x6 screw through the toothed lock washers and the tongue terminal in the order shown above.
3. Insert the M3x6 screw (with the two toothed lock washers and ring tongue terminal) into the grounding screw hole and tighten the screw.

8 Wall Plate/Switcher Compatibility

Table 21 lists which wall plates are compatible with the **SV-551** and **SV-552** switchers.

Table 21: Wall Plate/Switcher Compatibility

Wall Plate	SV-551	SV-552
301	√	√ (without EDID support)
301xl	√	√
302	√	√
303	√	
304	√	
305	√	
306		√
307		√

9 Summary of Recommended Cables

Table 22 defines the cables that are compatible with the wall plates.

Table 22: Cables Compatible with the Wall Plates

Item	Description
SV-301 Cable set	
CP-STP-50/C-STP-50 (2 cables[1])[2]	STP cable 50' (15.24m)
C-MGM/MGM-3 (1 cable)[3]	Molded Micro VGA to VGA cable 3' (0.91m)
SV-301xl Cable set	
CP-STP-50/C-STP-50 (2 cables[1])[2]	STP cable 50' (15.24m)
C-MGM/MGM-3 (1 cable)[3]	Molded Micro VGA to VGA cable 3' (0.91m)
SV-302 Cable set	
CP-STP-50/C-STP-50 (1 cable[1])[2]	STP cable 50' (15.24m)
C-RVM/RVM-3 (1 cable)[3]	Molded RCA RG-59 video cable 3' (0.91m)
SV-303 Cable set	
CP-STP-50/C-STP-50 (2 cables[1])[2]	STP cable 50' (15.24m)
C-MGM/MGM-3 (1 cable)[3]	Molded Micro VGA to VGA cable 3' (0.91m)
SV-304 Cable set	
CP-STP-50/C-STP-50 (2 cables[1])[2]	STP cable 50' (15.24m)
C-MGM/MGM-3 (1 cable)[3]	Molded Micro VGA to VGA cable 3' (0.91m)
SV-305 Cable set	
CP-STP-50/C-STP-50 (2 cables[1])[2]	STP cable 50' (15.24m)
C-MGM/MGM-3 (1 cable)[3]	Molded Micro VGA to VGA cable 3' (0.91m)
SV-306 Cable set	
BCP-DGKat524[2,4]	Bulk DTP cable for 1080P support at distances up to 50' (15.24m)
C-DM/DM-3 [3]	Molded DVI-D cable 3' (0.91m) for displays with digital video inputs on a DVI connector
C-HDMI/DVI-3 (1 cable)	Molded DVI-D to HDMI cable 3' (0.91m) for displays with digital video inputs on HDMI connector
SV-307 Cable set	
BCP-DGKat524[5,6]	Bulk DTP cable for 1080P support at distances up to 50' (15.24m)
C-DM/DM-3 [7]	Molded DVI-D cable 3' (0.91m) for displays with digital video inputs on a DVI connector
C-HDMI/DVI-3 (1 cable)	Molded DVI-D to HDMI cable 3' (0.91m) for displays with digital video inputs on HDMI connector

1 There are two types of STP cable recommended for the SummitView™ Kit: XXP-XXX (plenum rated for the SummitView™ US) or XX-XXX (non-plenum for the SummitView™ Europe)

2 Connects the Wall Plate to the SV-552

3 Connects the SV-551/SV-552 to the projector

4 For longer cable runs, use Kramer BC-DGKat623/BCP-DGKat623 cables

5 Connects the Wall Plate to the SV-552

6 For longer cable runs, use Kramer BC-DGKat623/BCP-DGKat623 cables

7 Connects the SV-551/SV-552 to the projector

9.1 Cabling for the SV-306 and SV-307

Kramer engineers have developed special twisted pair cables to best match our digital twisted pair products; the Kramer **BCP-DGKat524** (CAT 5 24 AWG), and the Kramer **BCP-DGKat623** (CAT 6 23 AWG cable). These specially built cables significantly outperform regular CAT 5/CAT 6 cables, especially when used with Kramer digital TP products.

A system range of up to 90m (295ft) at 1080i/SXGA, or up to 30m (98ft) at 1080p/UXGA on shielded **BCP-DGKat524** cable; 90m (295ft) at 1080i, or up to 70m (230ft) at 1080p/UXGA on shielded **BCP-DGKat623** cable.

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, or on which the WARRANTY VOID IF TAMPERED sticker has been torn, reattached, removed or otherwise interfered with

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

* FCC and CE approved using STP cable (for twisted pair products)

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.
Web site: www.kramerelectronics.com
E-mail: info@kramerel.com

P/N: 2900-000604 REV 2