

# 6x1 MULTI-FORMAT SCALER SWITCHER



**Vanco Part Number:  
EVSW1061**

**6x1 Multi-Format  
Scaler Switcher**

**EVOLUTION**  
BY   
ADVANCING DIGITAL CONNECTIVITY

**www.vanco1.com • 800.626.6445**

## DEAR CUSTOMER

Thank you for purchasing this product.  
For optimum performance and safety, please  
read these instructions carefully before connecting, operating or  
adjusting this product. Please keep this manual for future reference.

This product is 100% inspected and tested in the United States to verify  
HDMI performance parameters.

## WARNING

1. Do not expose this unit to water, moisture, or excessive humidity.
2. Do not install or place this unit in a built-in cabinet, or other confined space without adequate ventilation.
3. To prevent risk of electrical shock or fire hazard, due to overheating do not obstruct unit's ventilation openings.
4. Do not install near any source of heat, including other units that may produce heat.
5. Do not place unit near flames.
6. Only clean unit with a dry cloth.
7. Unplug unit during lightening storms or when not used for an extended period of time. A surge protector is strongly recommended.
8. Protect the power cord from being walked on or pinched, particularly at the plugs.
9. Use unit only with accessories specified by the manufacturer.
10. Refer all servicing to qualified personnel.

## CAUTION

HDMI is a very complex technology requiring continuous authentication of the signal and the same video resolution and audio settings on all electronic equipment in the system. When there are multiple sources and displays, the video resolution and audio setting on all connected units must be adjusted to correspond with that of the display having the lowest video and audio capability.

## INTRODUCTION

The EVSW1061 is a compact 6x1 multi-format switcher with 6 video inputs (3 HDMI, 2 VGA, 1 HDMI/MHL), 2 auxiliary audio inputs (switched following VGA), 1 HDMI output and 3 audio outputs (1 dual-mono analog audio, 1 3.5mm stereo audio, 1 optical audio).

It not only switches VGA or HDMI/DVI/MHL input signals to HDMI output but can also scale to 6 different resolutions. The bypass HDMI feature provides comprehensive resolution capacities up to 4K & 1080p 3D. The unit also supports RS232 and IR control and as well as EDID management. The EVSW1061 works in a variety of applications from security monitoring, conference rooms, classrooms, control center and smart homes to name a few.

### 6 x 1 Multi-Format Switcher Scaler

#### Part # EVSW1061

- Compact 6x1 multi-format switcher with 6 video inputs (3 HDMI, 2 VGA, 1 HDMI/MHL), 2 auxiliary audio inputs mirrored to the VGA inputs, 1 HDMI output and 3 audio outputs (1 dual-mono analog audio, 1 3.5mm stereo audio, 1 optical audio)
- Switches VGA or HDMI/DVI/MHL input signals to HDMI output
- Scales to 6 different resolutions, VGA to HDMI output - Output resolutions selectable to assure preferred output. Supports various output resolutions, such as 1920x1200, 1920x1080, 1360x768, 1280x800, 1024x768, 1280x720
- Bypass HDMI feature provides comprehensive resolution capacities up to 4K & 1080p 3D
- Transmits 4K/UHD @ 30 HZ up to 50 ft. / 15m
- Supports RS232 and IR control
- Supports advanced EDID management
- Supports MHL 2.0, Maximum Resolution 1080p
- MHL auto detection, Supports device charging over MHL, maximum 5V 900mA
- HDCP 1.4 Compliant
- Two input switching modes: auto-switching or manual-switching
- Intuitive indicator for power connect states, source selection, and output resolution selection
- Supports Audio and Video output management via Output Black button
- Features a Type A USB port for Firmware upgrades
- Compact design for easy operation, works in a variety of applications from security monitoring, conference rooms, classrooms, control center and smart homes
- Features off memory for reliable operation - input and output mapping is automatically stored and recalled when the unit is powered on and off and in the event of a power outage
- Supports hot plug
- Dimensions: 13.7" W x 1.1" H x 4.3" D

## SPECIFICATIONS

Input .....	3 HDMI, 2 VGA, 1 HDMI/MHL
Input Connector .....	4 female HDMI (Type-A)
2 female VGA (15Pin)	
Input Video Signal .....	HDMI/DVI/MHL,VGA
Output.....	1 HDMI
Output connector.....	1 female HDMI
Output Video Signal.....	HDMI
Resolution.....	HDMI: up to 4Kx2K; VGA: output resolution selectable
Standard.....	Compliant with VGA&DVI, MHL 2.0, HDMI1.4, HDCP 1.4
Audio Input.....	2 stereo audio inputs for VGA
Audio Input Connector .....	2 3.5mm Stereo jacks
Audio Output.....	1 Dual-Mono analog audio, 1 stereo audio, 1 optical audio
Audio Output Connector .....	1 3-pin pluggable terminal block (3.81mm), 1 3.5mm jack, 1 SPDIF fiber connector
Control Ports .....	RS232, IR remote
Panel Control.....	Front Panel Button
Pin configuration.....	2 = TX, 3 = RX, 5 = GND
Power Supply .....	DC 5V 3A
Power Consumption .....	3.8 (Max)
Dimensions .....	13.7" W x 1.1" H x 4.3" D
Weight .....	0.63Kg
Temperature .....	0-50 Degrees C
Reference Humidity.....	10% ~ 90%
Transmit Distance.....	4Kx2K≤15m

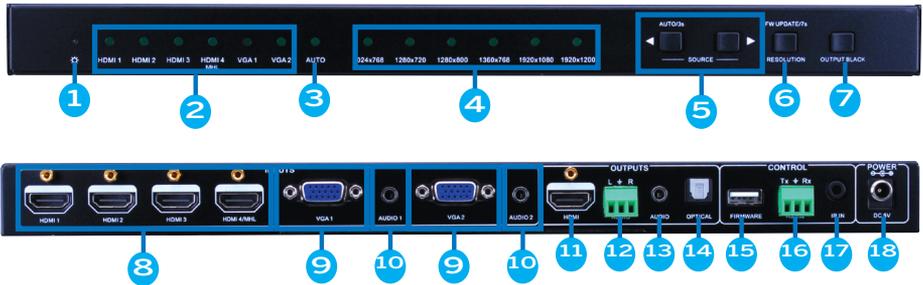
Note: Compact Scaler Switcher supports 4k&1080p 3D HDMI signal, please adopt quality HDMI cables compliant with HDMI1.4 for reliable transmission when connecting

<b>Format</b>	<b>Resolution</b>
HDMI/DVI/MHL	800x600@60Hz, 800x600@72Hz, 800x600@75Hz, 1024x768@42Hz, 1024x768@60Hz, 1024x768@70Hz, 1024x768@75Hz, 1024x768@85Hz, 1152x864@75Hz, 1280x768@60Hz, 1280x768@75Hz, 1280x768@85Hz, 1280x960@60Hz, 1280x960@85Hz, 1280x1024@60Hz, 1280x1024@75Hz, 1280x1024@85Hz, 1365x1024@60Hz, 1365x1024@60Hz, 1600x1024@60Hz, 1600x1200@60Hz, 1600x1200@65Hz, 1600x1200@70Hz, 1600x1200@75Hz, 1600x1200@85Hz, 1680x1050@60Hz, 1792x1344@60Hz, 1856x1392@60Hz, 1856x1392@75Hz, 1920x1080@60Hz, 1920x1200@60Hz, 1920x1440@60Hz, 3840x2160@24Hz, 3840x2160@30Hz, 3840x2160@25Hz, 4096x2160@24Hz, 4096x2160@25Hz, 4096x2160@30Hz
VGA	800x600@60Hz, 800x600@72Hz, 800x600@75Hz, 1024x768@60Hz, 1024x768@70Hz, 1024x768@75Hz, 1280x768@60Hz, 1280x768@75Hz, 1280x960@60Hz, 1280x1024@60Hz, 1280x1024@75Hz, 1365x1024@60Hz, 1365x1024@75Hz, 1600x1024@60Hz, 1600x1200@60Hz, 1600x1200@65Hz, 1600x1200@70Hz, 1600x1200@75Hz, 1680x1050@60Hz, 1792x1344@60Hz, 1920x1080@60Hz, 1920x1200@60Hz

## PACKAGE CONTENTS

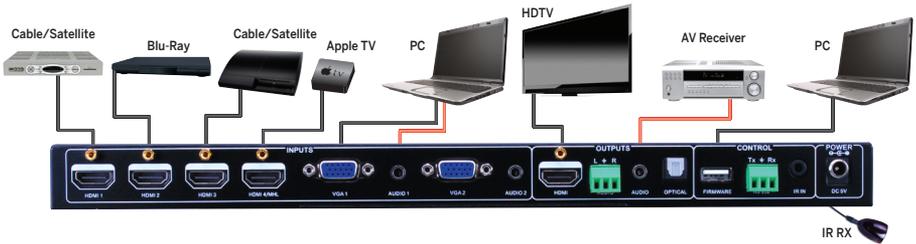
- EVSW1061 Scaler Switcher
- IR Receiver
- IR Remote
- DC 5V 3A Power Supply
- Mounting Hardware
- (2) 3-pin Pluggable terminal blocks
- Product Manual

## PANEL DESCRIPTIONS



1. Power LED: Indicator for power status. Off when no power; Constantly green when the system is in working; Constantly red when the system is enter in standby.
2. Inputs LED: Constantly green when choosing the corresponding audio source.
3. Auto-switching LED: Constantly green when enter in auto-switching mode.
4. Output resolution selection LED: Constantly green when choosing the corresponding output resolution (Input is VGA).
5. Source/Auto: Audio source selection button: switching circularly between HDMI1, HDMI2, HDMI3, HDMI4, VGA1, VGA2. dial left to select the previous one, dial right to select the next one; Switching mode selection button: Press and hold for 3 seconds or more to enter in auto-switching mode, press and hold for 3 seconds or more again to enter in manual-switching mode.
6. Resolution/FW Update: Output resolution manual switching button for VGA input: selection circularly among 1920×1200, 1920×1080, 1360×768, 1280×800, 1024×768, 1280×720.default resolution:1920×1080; Firmware updating button: press and hold for 7 seconds or more to enter in software updating procedure. All LED blinking when the system is loading firmware
7. Output Black: Press to switch on/off audio&Video output. All LED turn off except power LED when switch off output.
8. HDMI Inputs: 4 HDMI/DVI/MHL video source input ports (embedded HDMI audio format: PCM).
9. VGA Input : 2 VGA video source input ports.
10. Audio Inputs: 2 3.5mm stereo audio source input ports, switched following the corresponding VGA.
11. HDMI Output: HDMI video output port.
12. 3P Audio Output: Dual-Mono analog audio output port.
13. 3.5mm Audio Output: stereo audio output port.
14. Optical Output: optical audio output port.
15. Firmware: Type-A USB port for updating firmware.
16. RS232: Serial port, 3-pin pluggable terminal block, connect with control terminal (e.g. a PC) to control Compact Scaler Switcher.
17. IR IN: connect to an IR Receiver, to receive IR signal send by corresponding IR remote.
18. DC 5V: Connect to a DC 5V 3A power adapter.

# CONNECTION DIAGRAM



## CONNECT AND OPERATE

1. Connect HDMI/DVI/MHL sources (example: DVD player) to HDMI input ports of Compact Scaler Switcher with HDMI cables
2. Connect VGA sources (example: DV Camera) to VGA input ports of Compact Scaler Switcher with VGA cables
3. Connect sources to the Audio input ports of Compact Scaler Switcher with audio cables
4. Connect a HDMI display (example: HDTV) to HDMI output port of Compact Scaler Switcher
5. Connect audio amplifiers (example: speaker/earphone) to audio outputs of Compact Scaler Switcher
6. Connect a control device (example: PC) to the RS232 port of Compact Scaler Switcher
7. Connect an IR Receiver working voltage: 5V to the IR IN port of Compact Scaler Switcher
8. Plug DC 5V 3A power adapter to Compact Scaler Switcher

## FRONT PANEL CONTROL

Front panel buttons can be used for source selections, adjusting output resolution, front panel buttons management, software updating and output screen settings. There are 6 sources for choose in total, including HDMI1, HDMI2, HDMI3, HDMI/MHL4, VGA1, VGA2. Video signals support auto-switching and manual-switching (factory default).

Manual-switching:

Dial back arrow to select the previous source, dial forward arrow to select the next source.

Auto-switching:

Press and hold for SOURCE/AUTO for 3 seconds or more to enter in auto-switching/ manual-switching mode. In this mode, select input source via front panel button is not available, but RS232 command and IR remote are able to switch mode. The auto LED turn green and keep on.

The auto-switching mode abides by the following:

New input:

Once detecting a new input signal, the switcher would switch to this new signal automatically.

Rebooting device:

The EVSW1061 have the ability to save the last configuration before losing power. If the last switching mode is auto-switching, once rebooted, the switcher will automatically enter auto-switching mode, then detect all inputs and memorize their connection status for future rebooting using. If the last displayed signal is still available, the unit will output the signal. If not, the unit will detect all the inputs signals with priority from HDMI1 to VGA2. When detected the first signal, it will transfer to output.

Signal removing:

Once removing the current display signal, Compact Scaler Switcher will detect all input signals with priority from HDMI1 to VGA2. It will transfer the signal firstly detected to be available to output devices

## RS232 CONTROL

First, connect Compact Scaler Switcher with an input device and an output device. Then, connect it with a computer which is installed with RS232 control software. There is a Vanco branded application that can be found at:

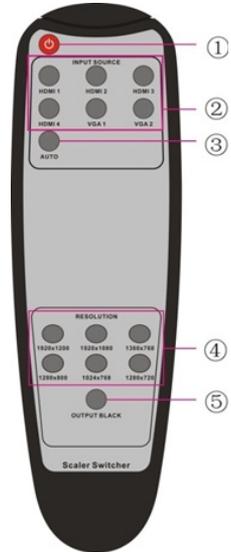
<http://www.vanco1.com/content/pages/tech-support.aspx>

The serial protocol is as follows. Please visit the product page at [www.vanco1.com](http://www.vanco1.com) for further commands and drivers.

Baud Rate .....	9600
Data Bit .....	8
Stop Bit .....	1
Parity .....	None

# IR CONTROL

1. Standby button: Enter/ exit standby mode.
2. Input channel selection buttons: Selection video source via pressing corresponding button (audio switched following the corresponding VGA).
3. Auto button: Enter/ exit auto-switching mode.
4. Resolution selection buttons: Select resolution via pressing corresponding button.
5. Output black button: Press to switch on/off Audio& Video output



# FIRMWARE UPDATE

The EVSW1061 supports firmware updating via USB flash disk. The procedures as follows:

1. Copy the file "MERGE.bin" to the root directory of a USB flash disk. (Make sure the file is copied to the root directory for normal use. The "MERGE.bin" file is provided/ authorized by Vanco engineering department.
2. Plug the USB flash disk into the FIRMWARE port on its rear panel.
3. Press the button "RESOLUTION/FW UPDATE" for 7 seconds or more to update the firmware automatically. This can also be accomplished by sending the serial command 50698% to update software.

## TROUBLE-SHOOTING

1. **PROBLEM:** Power LED doesn't work or no response to any operation. **CAUSE:** Fail connection of power cord. Power adapter isn't suitable **SOLUTION:** Make sure the power cord connection is normal. Please replace the power adapter with factory default.
2. **PROBLEM:** No output image on display when switching. **CAUSE:** Fail or loose connection. **Solution:** Make sure the connection is secure.
3. **PROBLEM:** Output image with snowflake or ghost **CAUSE:** Bad quality of the connecting cable, or exceeding the transmission distance allowance. **SOLUTION:** Replace with higher quality or proper distance cable.
4. **PROBLEM:** Cannot control the device via front panel buttons. **CAUSE:** Front panel buttons are locked. **SOLUTION:** Send command 50605% to unlock it
5. **PROBLEM:** Cannot select source via SOURCE/AUTO buttons. **CAUSE:** In auto-switching mode. **SOLUTION:** Press it and hold for 3 seconds or more to enter in manual-switching mode
6. **PROBLEM:** Cannot control the device by control device (e.g. a PC) through RS232 port. **CAUSE:** Wrong RS232 communication parameters. **SOLUTION:** Type in correct RS232 communication parameters.
7. **PROBLEM:** Cannot control the device by control device (e.g. a PC) through RS232 port. **CAUSE:** Broken RS232 port. **SOLUTION:** Send it to authorized distributor for return.
8. **PROBLEM:** Cannot control the device via IR remote. **CAUSE:** The battery has run off. **SOLUTION:** Change for new battery.
9. **PROBLEM:** Cannot control the device via IR remote **CAUSE:** The IR remote is broken. **SOLUTION:** Send it to authorized distributor for return.
10. **PROBLEM:** Cannot control the device via IR remote. **CAUSE:** Beyond the effective range of the IR signal or not pointing at the IR receiver. **SOLUTION:** Adjust the distance and angle and point right at the IR receiver.

### SAFETY AND NOTICE

To insure the best from the product, please read all instructions carefully before using the device. Save this manual for further reference.

- Unpack the equipment carefully and save the original box and packing material for possible future shipment
- Follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- Do not dismantle the housing or modify the module. It may result in electrical shock or burn.
- Using supplies or parts not meeting the products' specifications may cause damage, deterioration or malfunction.
- Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Do not put any heavy items on the extension cable in case of extrusion.
- Do not remove the housing of the device as opening or removing housing may expose you to dangerous voltage or other hazards.

- Install the device in a place with fine ventilation to avoid damage caused by overheat.
- Keep the module away from liquids.
- Spillage into the housing may result in fire, electrical shock, or equipment damage. If an object or liquid falls or spills on to the housing, unplug the module immediately.
- Do not twist or pull by force ends of the optical cable. It can cause malfunction.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- Unplug the power cord when left unused for a long period of time.
- Information on disposal for scrapped devices: do not burn or mix with general household waste, please treat them as normal electrical wastes.

## LIMITED WARRANTY

With the exceptions noted in the next paragraph, Vanco warrants to the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this product, in Vanco's opinion, prove defective within this warranty period, Vanco, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of Vanco. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

Items integrated into Vanco products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to Vanco. A surge protector, power conditioner unit, or an uninterruptible power supply must be installed in the electrical circuit to protect against power surges.

If repairs are needed during the warranty period the purchaser will be required to provide a sales receipt/sales invoice or other acceptable proof of purchase to the seller of this equipment. The seller will then contact Vanco regarding warranty repair or replacement.

## TECHNICAL SUPPORT

In case of problems, please contact Vanco Technical Support by dialing 1-800-626-6445. You can also email technical support issues to [techsupport@vanco1.com](mailto:techsupport@vanco1.com).

When calling, please have the Model Number, Serial Number (affixed to the bottom of the unit) and Invoice available for reference during the call.

Please read this Instruction Manual prior to calling or installing this unit, since it will familiarize you with the capabilities of this product and its proper installation.

All active electronic products are 100% inspected and tested to insure highest product quality and trouble-free installation and operation. The testing process utilizes the types of high-definition sources and displays typically installed for entertainment and home theater applications.

For additional information, such as helpful installation videos, etc. please visit [www.vanco1.com](http://www.vanco1.com)

## LIABILITY STATEMENT

Every effort has been made to ensure that this product is free of defects. The manufacturer of this product cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user and installer of the hardware to check that it is suitable for their requirements and that it is installed correctly. All rights are reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

Manufacturer reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

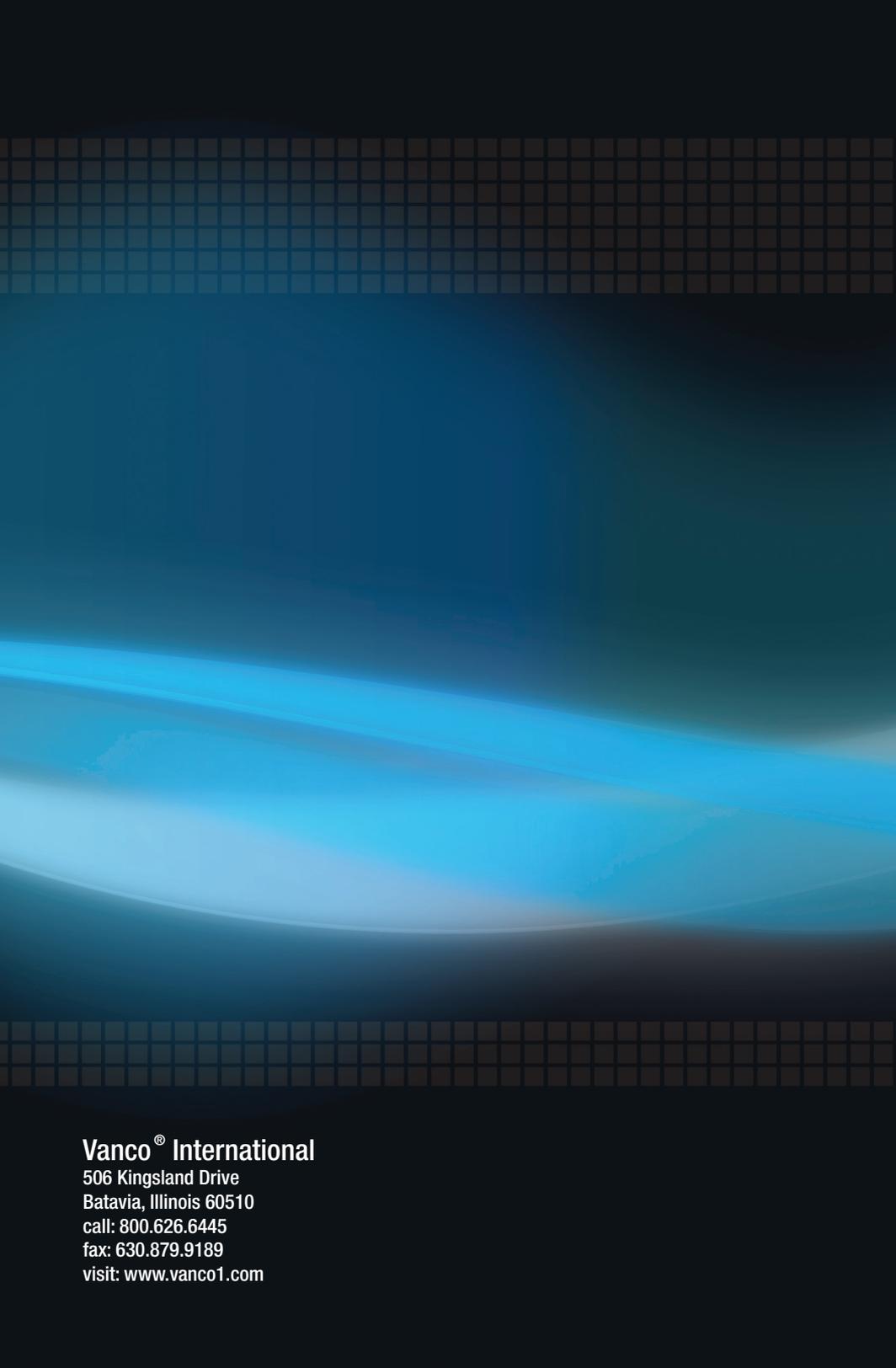
## FCC STATEMENT

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference

Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.





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