VCO-1, VCO-5UHD, VCO-8, VCO-16 Quick Start Guide

This guide helps you install and use your VCO device for the first time.

Go to www.kramerav.com/downloads/VCO to download the latest user manual and check if firmware upgrades are available.

Step 1: Check what’s in the box

- VCO-1, VCO-5UHD, VCO-8, VCO-16
- 4 Rubber feet
- 1 Bracket set (VCO-1)
- 1 Power adapter and cord (VCO-1, VCO-5UHD)
- 1 Quick start guide
- 1 Set of rack ears (VCO-8, VCO-16)
- 1 Power cord (VCO-8, VCO-16)

Step 2: Get to know your VCO-1, VCO-5UHD, VCO-8, VCO-16

Note that VCO-8 and VCO-16 are identical, except for the number of outputs: 8 for VCO-8 and 16 for VCO-16.

VCO-8

VCO-5UHD

VCO-1

VCO-8, VCO-16 Quick Start Guide
(P/N: 2900-300848QS REV 1)
**Feature** | **Function**
---|---
1 | INPUT LED
Lights when an input signal is active; flashes slowly when no input signal is detected.
2 | LOOP LED
Lights on the looped device when a looped signal is in use.
3 | OUTPUT STATUS LEDS
Lights when an output signal is active.
4 | USB CONNECTOR
Used to import graphic images.
5 | INPUT HDMI Connector
Connect to the source.
6 | LOOP HDMI Connector
Connect to an additional VCO device to daisy chain additional displays.
7 | HDMI OUT Connector
Connect to the displays from 1 to 8 (VCO-8); from 1 to 16 (VCO-16); from 1 to 5 (VCO-5UHD); 1 (VCO-1).
8 | SETUP DIP-Switches
For setting the last number in the machine LAN IPv4 address.
9 | RESET/TEST Button
RESET (for VCO-5UHD, VCO-8, VCO-16), TEST (for VCO-1)
Press for 5 seconds to reset IP settings to factory default values. Press briefly to enter the test pattern mode. The input signal is replaced with a test pattern at 1080p. Press briefly again to cycle between available test patterns or return to the input signal. Test pattern mode is useful for initial setup of the system.
10 | ETHERNET Connector
Connects to the PC or other LAN controller through computer networking.
11 | Power Connector with Fuse
AC connector, enabling power supply to the unit.
12 | LOOP Switch
Set LOOP switch to ON to define OUTPUT 1 as a video pass-through channel (looping the input to an additional VCO device) that does not accept any overlays, even if they were uploaded. Set to OFF for OUTPUT 1 to function as a regular output.
13 | LOOP OUT 1 HDMI Connector
When LOOP switch is set to OFF, functions as a regular output, accepting overlays. When LOOP switch is set to ON, functions as a pass-through channel.
14 | Micro USB Port
Used to import graphic images.
15 | 5V DC
+5V DC connector for powering the unit.
16 | ON LED
Lights when an input signal is active; flashes slowly when no input signal is detected.

### Step 3: Install VCO-1, VCO-5UHD, VCO-8, VCO-16

Install VCO devices using one of the following methods:

- **VCO-1, VCO-5UHD, VCO-8, VCO-16**: Attach the rubber feet and place the unit on a flat surface.
- **VCO-8, VCO-16**: Remove the three screws from each side of the unit, reinsert those screws through the rack ears and mount on a 19” rack.

- **VCO-1**: Fasten a bracket (included) on each side of the unit and attach it to a flat surface. For more information go to [www.kramerav.com/downloads/VCO-1](http://www.kramerav.com/downloads/VCO-1).

- **VCO-1**: Mount the unit in a rack using an optional RK-3T rack adapter for VCO-1 and RK-1 rack adapter for VCO-5UHD.
Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your VCO-1/VCO-5UHD/VCO-8/VCO-16. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to VCO-1/VCO-5UHD/VCO-8/VCO-16.

Connecting VCO-1

Connecting VCO-5UHD

LOOP is switched to ON to define OUTPUT 1 as a video pass-through channel (looping the input to an additional VCO device).

Connecting VCO-8 and VCO-16

Note that VCO-8 and VCO-16 are identical, except for the number of outputs: 8 for VCO-8 and 16 for VCO-16.

Step 5: Connect the power

Connect the 5V DC power adapter (to VCO-1, VCO-5UHD) or connect the power cord (to VCO-8, VCO-16), and plug it into the mains electricity.

Safety Instructions (for all the devices, unless otherwise specified)

Caution: There are no operator serviceable parts inside the unit.
Warning: Use only the power cord that is supplied with the unit (VCO-8, VCO-16).
Use only the Kramer Electronics power supply that is provided with the unit (VCO-1, VCO-5UHD).
Warning: Do not open the unit. High voltages can cause electrical shock! Servicing by qualified personnel only (VCO-8, VCO-16).
Warning: Disconnect the power and unplug the unit from the wall before installing.
Step 6: Operate the VCO-1, VCO-5UHD, VCO-8, VCO-16

Use the Kramer VCO Setup application to manage VCO-1 / VCO-5UHD / VCO-8 / VCO-16.

Download the KramerVCO-Setup.exe file from our Web site at: www.kramerav.com/downloads/VCOs.

The VCO Setup App allows you to take a template which can include one or more graphic files and a playback program, modify the program and settings if needed, and load the resulting overlay onto specific device outputs (via LAN) according to a predefined schedule.

In this TV Showroom example (also applies to coffee shops, sports bars, public areas, and so on), VCO-16 is connected to 16 TV outputs and a specific overlay (the price) is sent to each of the outputs:

![Image showing overlay options](image)

Default communication parameters:

<table>
<thead>
<tr>
<th>Ethernet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Address:</td>
<td>192.168.1.39</td>
</tr>
<tr>
<td>Subnet mask:</td>
<td>255.255.255.0</td>
</tr>
<tr>
<td>Default gateway:</td>
<td>192.168.1.254</td>
</tr>
<tr>
<td>TCP Port #:</td>
<td>5000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full Factory Reset</th>
<th></th>
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<tbody>
<tr>
<td>Reset/Test button:</td>
<td>While power is switched on, press and hold the RESET (or TEST) button for at least 5 seconds. Set the DIP-switches to 1 1 1 0 0 1 0 0 positions (DIP#1 to DIP#8, 1=on, 0=off).</td>
</tr>
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<table>
<thead>
<tr>
<th>Ethernet (TCP/IP) Command Protocol</th>
<th></th>
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<tr>
<td>Command Format:</td>
<td>ASCII protocol 3000</td>
</tr>
<tr>
<td>Example (Stop playback, and remove overlay from the screen for output 1):</td>
<td>#Y 0,150,0,0&lt;CR&gt;</td>
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