

COMMON INTEGRATOR USES FOR MURIDEO'S 8K FOX & HOUND TESTING KIT

Prior to performing service on a system that is exhibiting issues and prior to installing new products, ensure all devices are updated to the latest possible firmware, especially video displays.



1. HDMI CABLE CHECK

Connect cable from Generator output to Analyzer Input.

In take-over projects, test every HDMI cable in the entire system. Verify cable functionality and bandwidth capability for your designated use. Ignore cable labeling – test! Each test takes less than twenty seconds. As a Best Practice, HDMI pre-installation cable testing is encouraged in rack-loading rooms or on-site during system installation.

2. EDID COPY

Read the EDID from any video display or connected HDMI extension device. With the Copy function, the Analyzer will store the EDID and emulate the video display or repeater for troubleshooting purposes.

The Analyzer also functions as a complete portable monitor. The LCD screen verifies video signal presence while the built-in speaker confirms audio information is being passed-through.

3. ANALYZE THE SOURCE SIGNAL PARAMETERS AND ENTER INFORMATION INTO THE GENERATOR

With a source connected, the Analyzer will display the Audio and Video signal parameters that are being outputted. Use this information to set the Generator to match the source.

The Generator now emulates the source and may be used to troubleshoot the system from device to device, up to and including the display.

4. SIGNAL FLOW CONFIRMATION THROUGHOUT THE SIGNAL CHAIN PATH

With the Generator set to identically match the output of the Source, place the Analyzer at the end of the signal chain. Confirm the Analyzer displays the pattern that is being output by the Generator. If the Analyzer does not display the pattern, displace the device immediately before the display in the signal chain with the Analyzer then confirm signal presence. Repeat this process until continuity of signal can be confirmed. This process may be done during system installation (recommended), for troubleshooting post-installation, during service calls for system issues, or when evaluating take-over systems.

5. HDCP ISSUES CHECKED WITH THE GENERATOR

To check a Repeater or Display device for HDCP compliance, the following sequence should be followed: Begin with HDCP set to OFF in the Generator. Signal should be present throughout the chain. Set to HDCP 1.4 and confirm presence of signal. Set to 2.2 / 2.3 (4K or 8K Fox & Hound) and confirm presence of signal. At any point in this process when signal is absent, use the procedures in Step #4 to determine the choke point.

6. HDCP ISSUES CHECKED WITH THE ANALYZER

Checking for HDCP compliance from a Source or Repeater using the Analyzer is a different process than when using the Generator. When a Source is connected to the Analyzer, the HDCP version that is being tested for must be selected from the Analyzer menu.

Options are:

- HDCP2.x + 1.x - When selected, the Analyzer will accept a signal regardless of HDCP version.
- HDCP1.x - When selected, only signals encrypted with HDCP version 1.x will be accepted.
- HDCP2.x - When selected, only signals encrypted with HDCP version 2.x will be accepted.
- No HDCP -When selected, only unencrypted signals will be accepted by the Analyzer.

Note: Fixed Rate Link signals ONLY work with HDCP 2.x

7. HDR ISSUES

Starting in the source position, begin by setting HDR to OFF in the Generator and confirm signal presence. Next, select HDR10 and confirm HDR is present in the signal. Confirm settings in the Display device are correct for an HDR signal. If signal is absent with HDR enabled, use the procedure described in Step #4 to check each device in the signal chain, with the Generator connected to the Input, and the Analyzer connected at the Output. It is presumed all HDMI cables had been previously checked and were shown to PASS. It may be necessary to connect the Generator directly to the display. If all devices pass HDR10, select HLG and confirm signal presence. HDR options are: HDR10, HLG, and OFF.

8. ISOLATE THE CHOKE POINT

At any step where signal fails to pass, use process of elimination to determine the cause.

With the Generator on the Input side of a device and the Analyzer at the Output side, include the system cables entering and exiting the device, as they may be at fault. Test Input with the system cable, using a verified HDMI test cable on the Output side connecting the Analyzer. If no signal is present on the Analyzer, replace the HDMI Input cable with a second verified HDMI test cable. If signal remains absent, process of elimination points to the device.

9. ISOLATED ISSUE RECTIFIED

We will make the presumption that the chokepoint was a device improperly set up. With settings corrected and the procedure in Step #7 confirming signal passage, recheck the signal chain from Source to Display, confirming passthrough.

10. ISOLATED ISSUE NOT RECTIFIED

If the combination of settings the device offers do not allow signal passthrough, confirm its design parameters permit compliant use within the system.

An exaggerated example would be: An HDMI 1.4-rated repeater in a system that is exclusively UHD 4K 18Gbps. Such a device would require replacement.



For more information on the 8K Fox & Hound Test and Troubleshooting Kit, visit Murideo.com.