

# How to Troubleshoot Distribution Amplifiers

## **No video on all outputs:**

- Is the unit getting good power? Does the unit appear to respond to button presses and exhibits normal signs of life?
- Are you getting a message on the TV's saying "No Signal" Or is there a black screen. If a black screen or any message other than the TV's typical NO SIGNAL message might mean there is a signal passing but the format (resolution, etc) is not right.
- Can a source be taken direct to the display and picture passes?
- Do the receiver baluns (if applicable) get power and link lights? If no power, check CAT cables. If customer never saw power over existing CAT cables, they may have issues with the cable (bad pin out).
- Does power cycling the DA produce a temporary flash of image? If so, please check HDCP and EDID of source.
- Has another source been tried in place of the current one?
- Try learning EDID off one of the displays. Make sure this display has good image when learning EDID. NOTE: Most Atlona DA's learn from the #1 output.
- Have you tried updating firmware on the unit?
- If all else fails, try using another powersupply of the same Voltage/Amperage to see if video passes then.

## **No video on one output:**

- Can the cables from the non-working port be taken to a port that does work (swap) and vice versa? Does the issue follow the port or does it follow the cable run we moved?
- What is the status of the receiver balun (if applicable) on the output that's not working? Does it have solid link and power lights?
- If using HDMI cables, are these cables longer than 30ft? If so, can a shorter cable be tried?
- Are the CAT cables (if applicable) within specifications of the unit? NOTE: Even a foot over the specified distances may not work.
- Is the customer using any EZ-RJ 45 connectors on the output with issues? Have them try another CAT cable in between the DA and a receiver.
- If the display that's having issues is drastically different from the rest of the system (720P TV vs 1080P), try learning the EDID off that TV and seeing if the rest of the system accepts an image using that new EDID (make sure to power cycle the DA after doing an EDID adjustment).

**Random video drop outs / switching delay / unexplainable visual errors:**

- Does the issue follow a specific port? Try swapping the balun of this port with another one that works. See if the issue follows a port, cable, balun or display.
- Does the customer get a purple or pink screen on a display? Have them check the color space of their source (RGB, YCBCR, YPBPR) and confirm it matches the capabilities of their display. Learning edid off the problematic display can help correct the issue as well as using the AT-UHD-SYNC at the device.
- Are there sparkles or artifacts on a particular display? Check the cables (HDMI, CAT) to make sure there isn't anything near the cables that can cause Electro-Magnetic Interference (EMI).
- On distribution amps with multiple inputs, switching times of 2-7 seconds are normal. Having identical or similar capability displays will help keep sync times down. Locking EDID down will also help with sync times.
- Make sure customer is not using EZ-RJ 45 cables, patch panels, connecting blocks or CAT cables that are outside of device specifications. 568a vs 568b is not a major concern but if a customer uses 568a, have them try one 568b cable to see if their 568a format may have been wrong.
- Does the issue follow a specific output? If so, what is that outputs native resolution/format? If a projector is having issues in an installation of all TV's, a device such as an AT-UHD-SYNC may be used at the display to help correct HDMI issues such as voltage drop outs. An HDMI scaler (AT-HD550) can also be used to format the HDMI signal accordingly.
- If a customer uses an AVR on a particular run and experiences issues, have them bypass the AVR and see if issues occur without the AVR.

**No response to remote/control system:**

- How is the customer controlling the DA? If using a control system, check that proper connecting is made:
- RS232 uses pins 2,3,5 and may require a null modem depending on customers cables
- IR from a control system (three wires) will only use IR and Ground (power is not used) on the Atlona system
- IR routing is based on input/output selection
- TCP/IP requires the use of a Router with DHCP or a static IP. IP is set up through RS232.
- For RS232 check baud rate and port settings. NOTE: High comm #'s do not work well (keep comm #'s below 12)
- If a customer is using RS232 and cannot get communication from a control system into the Atlona distribution amp, bypass the control system and try direct connection from a PC using a USB to Serial cable and a serial program (Hterm is a free program found through google).
- Atlona systems require CARRIDGE RETURN, make sure one was properly sent (each control system may have a different designation for CR)
- If a DA does not respond to RS232 control via direct connection with PC and null modem has been tried, attempt a TelNet connection via TCP/IP.



- If a customer cannot get DA onto a network via TCP/IP have them confirm their router (not switch) has DHCP enabled as well as the Atlona. Default setting for Atlona is DHCP ON however if a customer had changed the settings of the DA, this may be off.
- If no IR control, try using the original IR remote that came with the Atlona DA, does the DA respond? If not responding, perform a factory reset.