

MultiView 9D ***Cat5 Distribution Amplifier***

Quick Reference & Setup Guide



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FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

EUROPEAN UNION DECLARATION OF CONFORMITY

The manufacturer declares that this product meets the requirements of EU Directive 89/336/EEC.



1. Specifications

Cable Required: Between transmitter and receiver(s): Category 5 shielded or unshielded twisted pair (STP or UTP)

Compliance: CE; FCC Class A, IC Class A

Video Support: Transparent to users—transmitter/receiver dependent.

Resolution and Refresh Rate: 2048 x 1536 @ 70 Hz, SD and HDTV formats (480i, 480p, 525p, 720p, 1080i, 1080p) — transmitter/receiver dependent

Transmission: Transparent to users (automatic, no delay)

Maximum

Distance: Total end to end, from source device to farthest destination device, over good CAT5 cable (assuming source outputs signal at normal strength) receiver dependent:
Up to 1500 ft. (457m) all resolutions

Connectors: (1) RJ-45 input, (9) RJ-45 output;
(1) rear-mounted power inlet

Temperature

Tolerance: Operating: 32 to 104°F (0 to 40°C);
Storage: -4 to +140°F (-20 to +60°C)

Humidity

Tolerance: Up to 80% noncondensing

Enclosure: Steel

Power: From utility-power (mains) outlet to power inlet, through detachable external power supply: Input: 100 to 250 VAC @ 50 or 60 Hz (autosensing);
Output: +5 VDC;
Consumption: 12 watts maximum

Size: 1.75"H x 8.1"W x 6.5"D (4.5 x 20.6 x 16.5 cm);

Weight: 2.3 lb. (1.0 kg);

2. Introduction

2.1 Overview

The Magenta MultiView Series System extends video signals over ordinary Category 5 cable. All models use a transmitter-to-receiver setup.

This manual covers the MultiView 9D 1x9 Distribution Amp. A MultiView transmitter unit as well as MultiView receiver units are required for operation. Please contact technical support for help.

WARNING

This equipment is not intended for, nor does it support, distribution through an Ethernet network. Do not connect these devices to any sort of networking or telecommunications equipment!

2.2 Package Contents

You should have received the following when ordering the MultiView 9D 1x9 Distribution Amp:

- The MultiView 9D 1x9 Video Distribution Amp.
- A ground wire.
- External power supply (100–250 VAC, 50–60 Hz, autosensing) with cord.
- This manual.

2.3 Equipment You May Also Need

- CAT5 cable.
- MultiView series transmitters and receivers.

2.4 Compatible Cabling

Magenta Research products are compatible with Cat5/5e/6 data cabling as well as skew free CAT5/5e cabling manufactured for video applications. Note that some skew free Cat5 is specific to a particular vendor and is not compatible with our products. Please ensure any skew free CAT5 cable is non-proprietary prior to purchase/installation.

CAT6 cable, due to the manufacture method, can exhibit much greater skew than standard CAT5/5e and may require skew compensation beyond what the standard product offers. Please contact Magenta Research for assistance.

CAT5/5e/6 cabling for the Magenta MultiView™ Series must be pinned to the TIA-EIA T568B wiring specification (see appendix A) We also highly recommend that all CAT5 cables be pre-terminated and tested. Cables terminated on-site or in an existing infrastructure should be tested before use to ensure compliance with the TIA-EIA T568B specification. Using incorrectly terminated CAT5 cables can damage the Magenta MultiView™ Series.

3. Setup and Installation

3.1 Cabling Considerations

- We recommend mounting and connecting all cabling to the MultiView system components before applying power.
- Makes sure that the CAT5 cable you intend to use has been tested to comply with the TIA/EIA 568B wiring specification.

3.2 Making the Connections

3.2.1 Connections and Setup in General

The MultiView 9D 1x9 Distribution Amp utilizes industry standard CAT5 cabling to connect a MultiView transmitter and receivers.

Additional 9D 1x9 Distribution Amps may be cascaded via the UTP THRU output or any other output if necessary.

Figure 3-1 shows the MultiView 9D 1x9 Distribution Amp connections.

1. Connect the RJ-45 cable from a MultiView transmitter unit or other MultiView 9D 1x9 Video Distribution Amp into the port labeled UTP IN.
2. Connect RJ-45 cables from MultiView receiver units into the ports labeled OUTPUTS.
3. The port labeled UTP THRU may be used to cascade to other MultiView 9D 1x9 Video Distribution Amps or can be used with a MultiView receiver.
4. Connect the power supply to the unit.
5. Connect the included ground cable to the rear gold thumbscrew and the other end to a suitable earth ground. The grounding is required in instances where LCD monitors are used that do not provide a ground via the DC power adapter. Failure to connect the ground cable may result in loss of video signals.

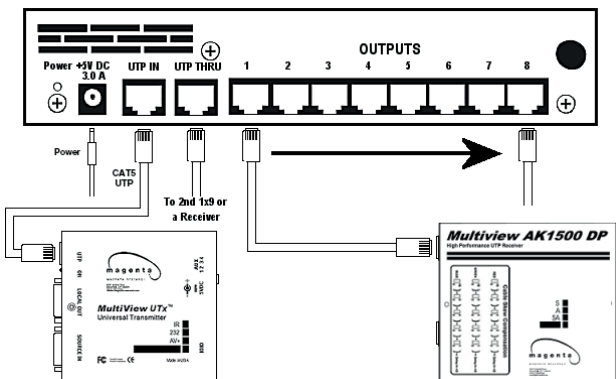


Figure 3-1. Connections on the 9D.

4. Troubleshooting

4.1. Common Problems

In most cases, nearly every issue with the MultiView Series can be resolved by checking the CAT5 termination and making sure that it's pinned to the TIA/EIA 568B wiring specification. However, there may be other problems that cause the system to not perform as it's designed. Below are solutions to the most common installation errors.

Reference the appropriate user manual for the transmitter and receiver in use for issues specific to these units.

Problem: No video signal or poor video quality at the transmitter local port or at the receiver.

Solution:

- Check that all units are powered.
- Ensure EQ adjustment on receiver is set correctly.
- Make sure the CAT5 cable is terminated correctly per the TIA/EIA 568B wiring specification.
- Is the display device powered on and functioning?
Check to ensure display settings (resolution, refresh rate, etc) are compatible with input signal.

Problem: Poor audio quality:

Solution:

- Powered speakers are required. Make sure speaker power is ON.
- Check input source levels from the source device. Make sure the audio source is not overdriven or underdriven.
- Audio is summed left and right for "A" versions. If using a single channel, both audio inputs must be connected at the transmitter end for full audio gain. Audio is line level.
- SA serial//audio units support full stereo line level. A high frequency noise may be heard if the Cat5 cable from the transmitter is disconnected, or the transmitter is not powered up. This is normal and will disappear once a complete link connection is made.

Problem: Serial communication doesn't work correctly.

Solution:

- Are the serial devices connected properly? Are the serial parameters correct for source/destination devices?
- When using RS-232 transmitters or receivers in daisy chains, Cat5 switches, 9D Cat5 distribution amps, or Multi-output transmitters, the serial signal is a **unidirectionally broadcast mode** only. In this mode, all other MultiView™ CAT5 Video System devices must be the **simplex serial** type.

Appendix A. Cabling Pinouts

T568B CAT5 Specification

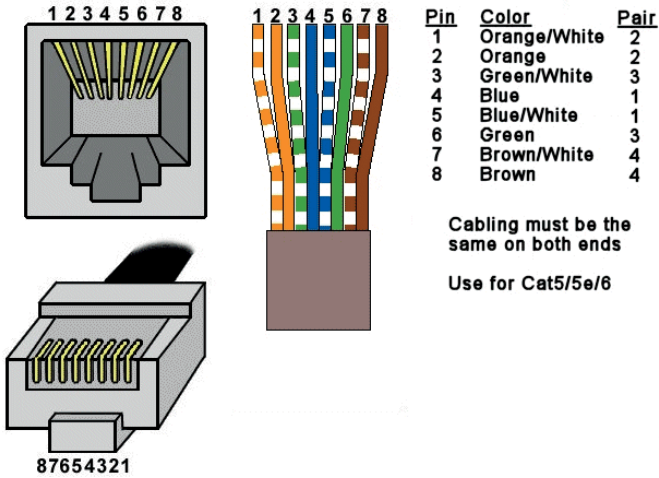


Table A-3. T568B CAT5 pinout



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Americas: 859-282-7303, EMEA: +44 (0)1843 873322, email: tech.usa@tvone.com
www.tvone.com