MultiView
T4 / T5
Transmitter
Quick Reference &
Setup Guide
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: Category 5, 5e, 6 shielded or unshielded twisted pair

Compliance: CE; FCC Class A, IC Class/class A

Video Support: to 2048x1536 @ 70Hz), RGBHV, RGB, Composite, S-Video, Component Video modes (Receiver dependent)

Maximum Resolution and Refresh Rate: (receiver dependent)

Required Source
Impedance: Video OUT: 75 ohms;
Audio OUT (if any): 600 ohms maximum

Required Destination
Impedance: Video IN: 75 ohms;
Audio IN (if any): 600 ohms minimum

Audio Characteristics: Channels: Right/Left summed;
Line Level 600 Ohm Unbalanced

Serial Characteristics: Uni Directional broadcast only

Connectors: (2) 3.5-mm, (1) RJ-45 input, (4) RJ-45 output, (2) HD15 F

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: +5 VDC
Consumption: 5 watts maximum

Size: 1.2 "H x 5.6"W x 4.5"D (3.1 x 14.2 x 11.4 cm)

Weight: 1.4 lb. (0.6 kg)
MAGENTA MULTIVIEW™ SERIES

2. Introduction

2.1 Overview

Magenta’s MultiView™ CAT5 Video System MultiView series extends VGA and audio signals over ordinary Category 5 cable.

This manual covers the Magenta MultiView™ T4/T5 multi output CAT5 Video System Series transmitters. The T4/T5 transmitter is compatible with all MV and AK series of receivers.

For information on respective receiver units, please refer to the appropriate manual included with the transmitter.

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 Equipment You May Also Need

- 1/8” (3.5mm) Audio cable with RCA jacks (model dependent).
- DB9 serial cable (model dependent).
- Video cable with HD15 connectors.
- CAT5 cable.

2.3 Compatible Cabling

CAT5 cabling for the MultiView™ Series must be pinned to the 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 T568B specification. Using incorrectly terminated CAT5 cables can damage the Magenta MultiView™ Series.

CHAPTER 3: SETUP & INSTALLATION

3. Setup and Installation

3.1 Cabling Considerations

- We recommend mounting and connecting all cabling to the MultiView™ Series components before applying power.
- Make sure that the CAT5 cable you intend to use has been tested to comply with the T568B wiring specification (See Appendix A).

3.2 Making the Connections

3.2.1 CONNECTIONS AND SETUP IN GENERAL

This section contains figures showing connections with the specific MultiView™ Series models. In general, however, the connection and setup procedure at both transmitter and receiver ends is as follows:

At the transmitter end (refer to the transmitter user guide):

1. Connect the source video to the MultiView™ Series transmitter video input port, which is an HD15 connector labeled SOURCE IN.
2. If desired, attach a local monitor via the local monitor port to LOCAL OUT.
3. Make your audio or serial connections via the 1/8” (3.5mm) audio connector or phoenix connector or DB9 connector (transmitter model dependent).
4. Connect the CAT5 cable to the transmitter.
5. Apply power on the transmitter. The LED should light and, if there’s a local monitor attached, a video image should appear on the monitor’s screen.

At the receiver end:

1. Connect the VIDEO OUTPUT HD15 connector to the display unit and attach any audio cabling.
2. Connect an audio or serial cable to the appropriate connector.
3. Connect the CAT5 cable to the UTP INPUT connection.
4. Apply power. The LED should light and video should appear on the display (make sure display is powered ON).
5. To adjust video levels see the appropriate receiver unit guide.
3.2.2 CONNECTIONS ON THE TRANSMITTER

The MultiView 450 T4/T5 four port transmitter is used when the same signal is distributed to multiple display devices. Set up and cabling are the same as the single port transmitter. Three versions are available (even though units have audio and serial connectors, only one signal type may be used at one time and is model dependent):

- Multiview 450T4/T5 for video
- Multiview 450T4A/T5A for video and mono audio
- Multiview 450T4S/T5S for video and serial*

*Serial communication mode is unidirectional broadcast when using T4 transmitters and daisy chain receivers. In this mode, all other MultiView devices must be of the simplex serial type.

3.2.3 A TYPICAL MULTIVIEW T4 TRANSMITTER–RECEIVER APPLICATION

Figure 3-2 shows an application in which a MultiView™ Series T4 Transmitter is linked to four MultiView™ Series Receivers.

Figure 3-1. Transmitter connections on the UTx Universal Transmitter.

Figure 3-2. MultiView T4 Transmitter to Receiver connections.
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 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.

Problem: No video signal at the transmitter local port or at the receiver.
Solution: • Check that both units are powered.
• Ensure Cable Length Compensation Switches are set correctly.
• Make sure the CAT5 cable is terminated correctly per the 568B wiring specification.
• Is the display device powered on and functioning?

Problem: Poor video quality.
Solution: • Have all receiver adjustments been finished.
• Check all cable connections.
• Ensure Cable Length Compensation Switches are set correctly.
• The video signal’s refresh rate may be set too high for the display. Reset to a lower refresh rate in your monitor-configuration menu.

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.
• Low Level Audio may require the 100 Ω termination disabled. Turn SW1 off to disable termination.

Problem: “Green shift” or “green washout” on multimedia signals.
Solution: The standard video model is designed to function with DC coupled signals in which the black level is referenced to 0 volts. Nearly all VGA cards function this way. Some media servers and inexpensive VGA DA’s, however, provide AC coupled signals and can cause a green color shift in the video. This is a result of the sync clamping on the red and blue channels of the video/serial model.

For five-component (RGB/H&V) AC coupled video, the MultiView™ Series UTx Universal transmitter has been designed with full DC restoration capability and can be used prior to the T4/T5 VGA input to solve the issue.

Appendix A. Cabling Pinouts

Table A-1. HD15 video connector.

<table>
<thead>
<tr>
<th>Pin</th>
<th>RGBHV (VGA)</th>
<th>RGBS</th>
<th>RGsB</th>
<th>Composite</th>
<th>SVHS (Y/C)</th>
<th>YUV</th>
<th>Composite Video &amp; Stereo Audio</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Red +</td>
<td>Red +</td>
<td>Red +</td>
<td>C+</td>
<td>V+</td>
<td>Y+</td>
<td>Audio Left</td>
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<tr>
<td>2</td>
<td>Green+</td>
<td>Green+</td>
<td>Green+</td>
<td>C+</td>
<td>Y+</td>
<td>Y+</td>
<td>C+</td>
</tr>
<tr>
<td>3</td>
<td>Blue+</td>
<td>Blue+</td>
<td>Blue+</td>
<td>C+</td>
<td>Y-</td>
<td>U+</td>
<td>Audio Left</td>
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<td>Red-</td>
<td>Red-</td>
<td>Red-</td>
<td>C-</td>
<td>V-</td>
<td>—</td>
<td>Shield</td>
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<tr>
<td>7</td>
<td>Green-</td>
<td>Green-</td>
<td>Green-</td>
<td>C-</td>
<td>Y-</td>
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<td>C-</td>
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<tr>
<td>8</td>
<td>Blue-</td>
<td>Blue-</td>
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Appendix A: Cabling Pinouts

Table A-2. T568B CAT5 pinout

<table>
<thead>
<tr>
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<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>Color</td>
<td>Orange/White</td>
<td>Orange</td>
<td>Green/White</td>
<td>Blue</td>
<td>Blue/White</td>
<td>Green</td>
<td>Brown/White</td>
<td>Brown</td>
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<tr>
<td>Pair</td>
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<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>4</td>
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Table A-3. 1/8” (3.5 mm) Audio Connection

<table>
<thead>
<tr>
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<th>Channel 1</th>
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<tr>
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<td></td>
</tr>
<tr>
<td>Ring</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Sleeve</td>
<td>-</td>
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Note: The stereo audio input at the transmitter is summed and output as mono audio on both channels at the receiver.

Table A-3. DB9 Serial Connection

<table>
<thead>
<tr>
<th>Serial Pins</th>
<th>T4S/T5S Simplex</th>
<th>Rx Simplex</th>
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<tbody>
<tr>
<td>1</td>
<td>Tx</td>
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<td></td>
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