



MANUAL PART NUMBER: 400-0377-003

DA1957CT

1-IN, 4-OUT TWISTED PAIR DISTRIBUTION AMPLIFIER USER'S GUIDE

DISTRIBUTION AMPLIFIERS

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PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **DA1957CT**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **DA1957CT** and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 GENERAL

- Qualified ALTINEX service personnel or their authorized representatives must perform all service.

1.2 INSTALLATION

- Place the **DA1957CT** on a flat, level surface in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the **DA1957CT** in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **DA1957CT** carefully. Dropping or jarring can damage internal components.
- To turn off the main power, be sure to remove the adapter from the wall. The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.
- Do not pull the adapter or any cable that is attached to the **DA1957CT**.
- If the **DA1957CT** is not used for an extended period, disconnect the adapter from the wall to avoid fire, shock, and loss of power.

1.3 CLEANING

- Unplug the **DA1957CT** power adapter before cleaning. Clean surfaces with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

1.4 FCC NOTICE

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

ABOUT YOUR DA1957CT

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DA1957CT

1-IN, 4-OUT TWISTED PAIR DISTRIBUTION AMPLIFIER

The **DA1957CT** is a 1-In, 4-Out Twisted Pair distribution amplifier designed to connect a single ALTINEX Twisted Pair transmitter to as many as 4 ALTINEX Twisted Pair receivers. The **DA1957CT** will pass computer video and audio signals from the transmitter over Twisted Pair-type (CAT-5) cable.

A typical setup allows a single computer's video and audio sources to be connected to as many as 4 Twisted Pair receivers. In turn, each receiver connects to a video monitor, projector etc. and/or an audio device such as a speaker or amplifier.

ALTINEX compatible transmitters and receivers include the DA1930CT VIDEO+AUDIO to Twisted Pair Transmitter and the DA1931CT VIDEO+AUDIO Twisted Pair Receiver.

The **DA1957CT** is capable of equalizing the attenuation effects of long cable runs up to 400 ft (122 m) depending upon the type and quality of cable being used. Additionally, there is a signal detect feature which shows when an input signal is present.

The latest generation of Twisted Pair devices uses an innovative, patented technology* developed by ALTINEX. The new signal processing technology allows transmitting and receiving fully equalized computer video signals, stereo, and audio signals over long distances. The maximum distance at full UGXA resolution is 400 ft (122 m) between devices and may reach up to 750 ft (230 m) at VGA resolution.

* US Patent 7,065,190

TECHNICAL SPECIFICATIONS

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FEATURES/DESCRIPTION	DA1957CT
GENERAL	
Inputs	1
Input Connector	RJ-45
Outputs	4
Output Connectors	RJ-45
Compatibility	VGA through UXGA, C-Video, S-Video, Stereo Audio

Table 1. **DA1957CT** General

MECHANICAL	DA1957CT
Material	0.1" Al
Finish	Gray
Top Panel	Lexan
Height (inches)	1.0 in (25 mm)
Width (inches)	4.3 in (109 mm)
Depth (inches)	3.0 in (76 mm)
Weight (pounds)	0.42 lbs (0.19 kg)
Ship Weight (pounds)	0.84 lbs (0.38 kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

Table 2. **DA1957CT** Mechanical

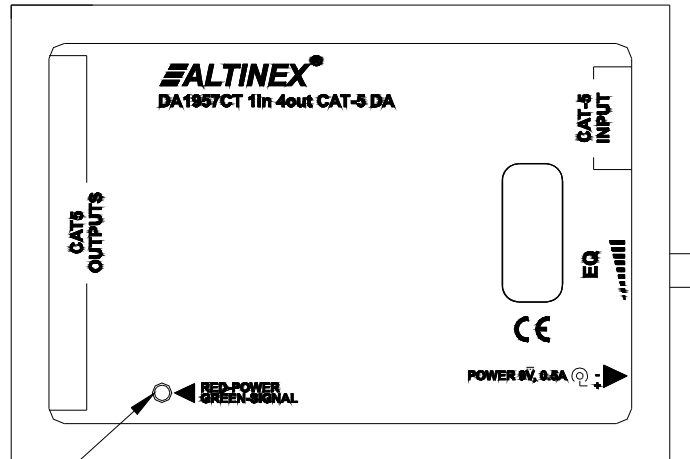
ELECTRICAL	DA1957CT
Input Video Signal	
CAT-5/6 Twisted Pair Input	Video/Sync/Audio Signals ALTINEX Standard
Impedance	50 Ohms
Output Video Signals	
CAT-5/6 Twisted Pair Output	Video/Sync/Audio Signals ALTINEX Standard
Impedance	50 ohms
Power	
External Adapter (included)	9V DC, 500 mA

Table 3. **DA1957CT** Electrical

DISTRIBUTION AMPLIFIERS

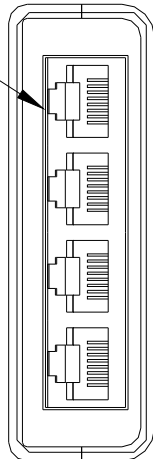
PRODUCT DESCRIPTION

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POWER/SIGNAL
PRESENT LED

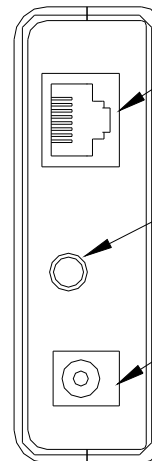
TP OUTPUTS



TP INPUT

VIDEO
EQUALIZATION

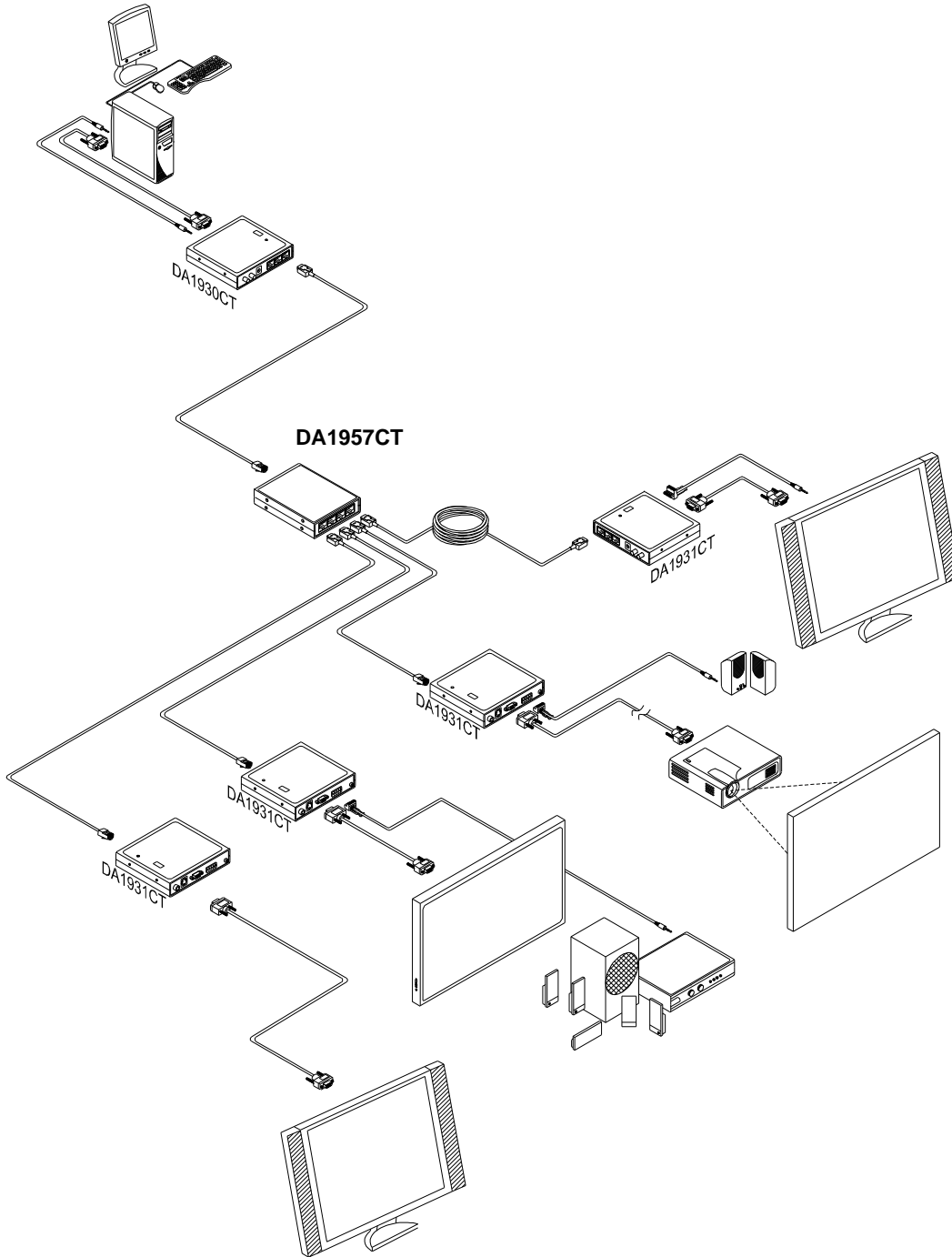
POWER



APPLICATION DIAGRAMS

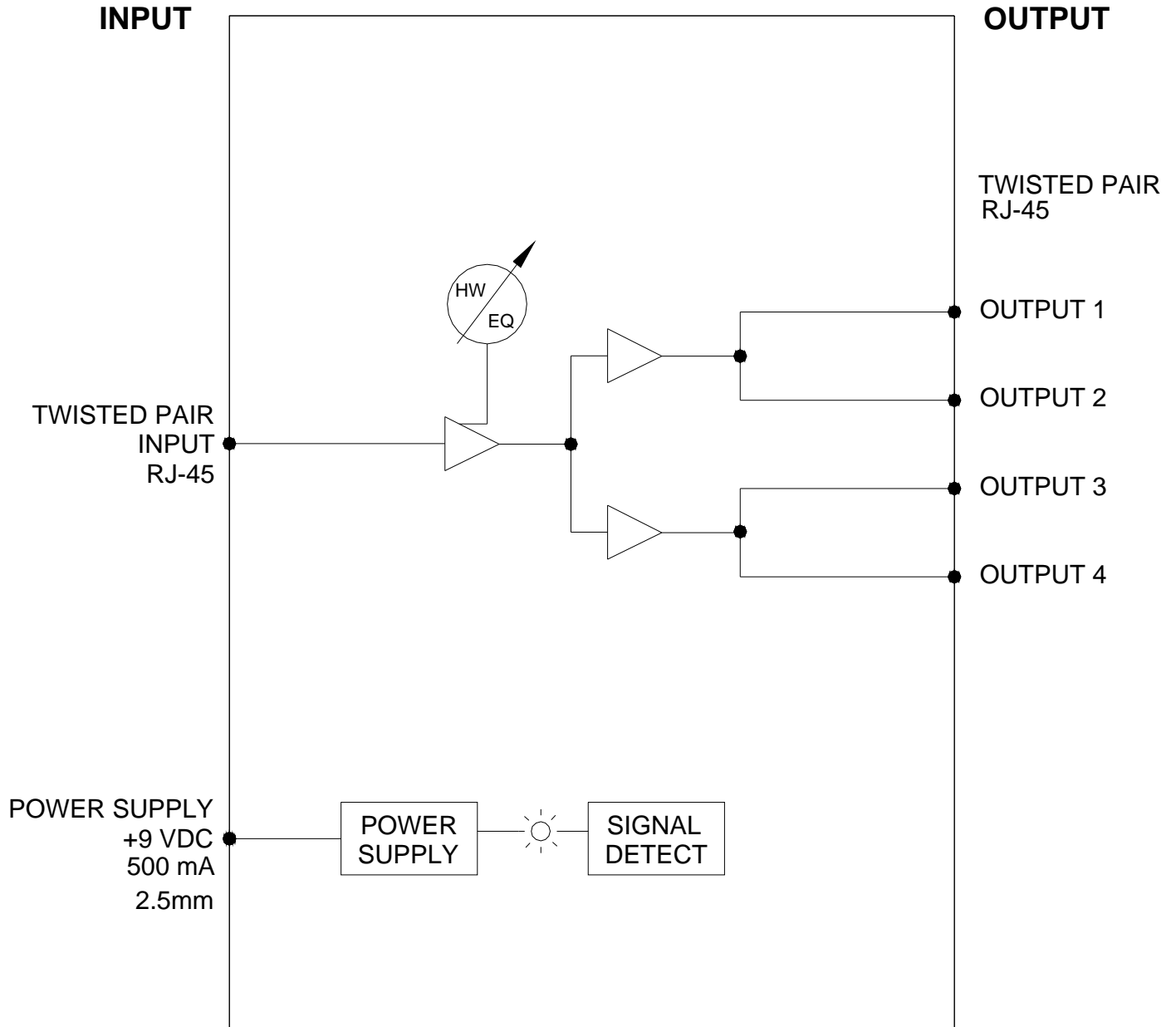
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DIAGRAM 1: TYPICAL SETUP



DISTRIBUTION AMPLIFIERS

DIAGRAM 2: INTERNAL VIEW



INSTALLING YOUR DA1957CT 6

- Step 1.** Determine the best location for the **DA1957CT**.
- Step 2.** Connect the power adapter to the **DA1957CT** and plug it into the power outlet. The power indicator LED on the front panel will light. This indicates that the unit is operational.
- Step 3.** Connect a cable from the Twisted Pair transmitter to the Input connector on the **DA1957CT**.
- Step 4.** Connect 1 to for 4 of the **DA1957CT** outputs to Twisted Pair receivers. The unused outputs (if any) do not need to be terminated. The receiving devices (monitors, projectors, speaker, etc.) should be connected to the Twisted Pair receivers per their manuals.
- Step 5.** Adjust the equalization settings for the best image quality.

OPERATION 7

The **DA1957CT** will operate successfully as long as cables are attached properly and other technical specifications are followed. The only adjustment on the **DA1957CT** is for video equalization and only needs to be made at the time of installation.

The equalization knob is a single-turn adjustment. At minimum (fully CCW), the arrow points to the 7 o'clock position and at maximum (fully CW) it points to the 5 o'clock position.

Video equalization is provided to fine-tune the displayed image on the remote display. Typically, for short cable runs the equalization will be set to near minimum. Cable lengths up to 400 ft (122 m) will require near maximum equalization.

TROUBLESHOOTING GUIDE 8

We have carefully tested the supplied **DA1957CT** unit and have found no problems; however, we would like to offer the following suggestions:

8.1 LED IS NOT RED

The LED should be on and red when power is applied and there is no video signal present. If the LED is on and green, the unit is receiving power and a sync signal.

Cause 1: No AC power.

Solution: Verify the adapter is plugged into a working AC outlet, and that the outlet has power. It is best to use only the ALTINEX-provided power adapter.

Cause 2: Adapter is not plugged into **DA1957CT**.

Solution: Verify the DC power plug coming from the AC adapter is plugged all the way into the **DA1957CT**.

Cause 3: The **DA1957CT** has a problem.

Solution: If there is AC power to the adapter and the LED still does not turn on, the **DA1957CT** or the power adapter may require service. Call ALTINEX at (714) 990-2300.

8.2 LED IS NOT GREEN

Cause 1: There is no power.

Solution: Disconnect the video input from the **DA1957CT** and verify the LED is on and red indicating power is present. Reconnect the computer's video output. If the LED is still not green, see Cause 2.

Cause 2: There is no sync signal.

Solution 1: Verify the computer output is operating correctly by connecting it directly to a local monitor. If the display is good, see Solution 2.

Solution 2: Verify that the transmitter and receiver are each operating correctly by connecting them directly to each other, bypassing the **DA1957CT**. If the display is good, see Solution 3.

Solution 3: Reconnect the **DA1957CT**. If the POWER/SIGNAL PRESENT LED is still on and red with the signal present, call ALTINEX at (714) 990-2300.

8.3 NO SOUND

Cause 1: The source has a problem.

Solution: Check the source and make sure that there is a signal present and all source connections are correct. If the source is working and there is still no sound, see Cause 2.

Cause 2: The volume is too low.

Solution: Increase the AUDIO GAIN on the transmitter toward maximum. If there is still no sound present, see Cause 3.

Cause 3: Cable connections are incorrect.

Solution: Make sure that cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no sound, see Cause 4.

Cause 4: The receiving device has a problem.

Solution: Make sure the receiving device has power and is turned on. If there is still no sound, please call ALTINEX at (714) 990-2300.

8.4 NO REMOTE IMAGE

Cause 1: The source has a problem.

Solution: Check the image on the local monitor and verify the quality is good. If the local image is good, see Cause 2.

Cause 2: Video equalization required.

Solution: Adjust the VIDEO EQUALIZATION on the **DA1957CT**. Long cable runs may require adjustment. In general, cable runs less than 50 ft (15 m) require little or no video equalization and should be set to minimum. Cable runs of 400 ft (122 m) will require near maximum equalization. If there is still no image, see Cause 3.

Cause 3: No signal.

Solution: If the POWER/SIGNAL PRESENT LED is on and green and there is still no image, call ALTINEX at (714) 990-2300.

8.5 REMOTE IMAGE QUALITY IS POOR

Cause 1: The source has a problem.

Solution: Check the image on a local monitor and verify the quality is good. If the local image is good, see Cause 2.

Cause 2: Video equalization required.

Solution: Adjust the VIDEO EQUALIZATION on the **DA1957CT**. If the image is still not correct, call ALTINEX at (714) 990-2300.

ALTINEX POLICIES

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9.1 LIMITED WARRANTY/RETURN POLICIES

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.

9.2 CONTACT INFORMATION

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