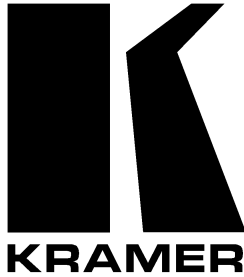


**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

**PT-4 iREX**

*IR Repeater*

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Getting Started</b>	<b>1</b>
2.1	Quick Start	2
<b>3</b>	<b>Overview</b>	<b>3</b>
<b>4</b>	<b>Your IR Repeater</b>	<b>4</b>
<b>5</b>	<b>Connecting the PT-4 iREX IR Repeater</b>	<b>5</b>
<b>6</b>	<b>Technical Specifications</b>	<b>7</b>

## Figures

Figure 1: PT-4 iREX IR Repeater	4
Figure 2: Connecting the IR Emitter	5
Figure 3: Connecting the IR Repeater	6

## Tables

Table 1: Features and Functions of the PT-4 iREX	4
Table 2: Technical Specifications of the PT-4 iREX	7

## 1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 500-plus different models now appear in 8 Groups<sup>1</sup>, which are clearly defined by function.

Congratulations on purchasing your Kramer Pico TOOLS **PT-4 iREX IR Repeater**, which is ideal for:

- High quality home theater installations
- Studios, airports, offices and hospitals
- Security and military applications

The package includes the following items:

- **PT-4 iREX**
- One IR emitter cable<sup>2</sup>
- External Remote IR Receiver<sup>3</sup> (0.9 meter in length)
- Power supply, and this user manual<sup>4</sup>

## 2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance high resolution cables<sup>5</sup>

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1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Sealers; and GROUP 8: Cables and Connectors

2 The 3.5mm to IR Emitter Control Cable (C-A35/IRE-10)

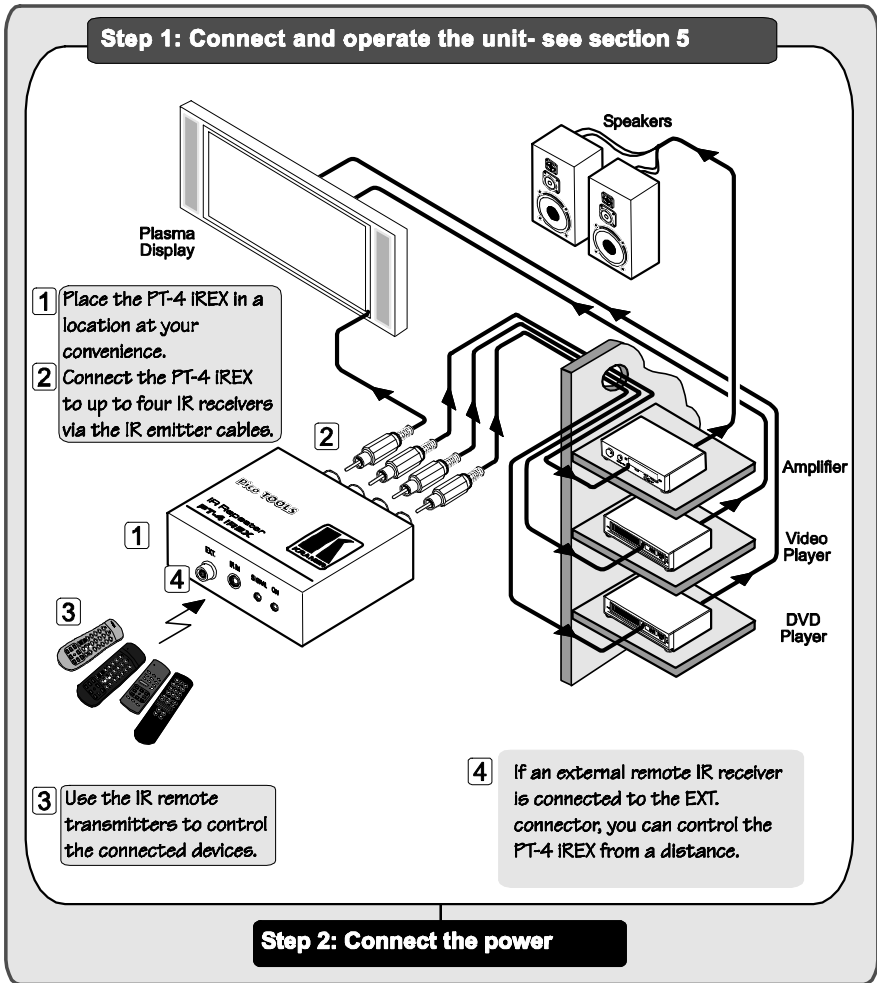
3 Model C-A35M/IRR-03

4 Download up-to-date Kramer user manuals from the Internet at this URL: <http://www.kramerelectronics.com>

5 The complete list of Kramer cables is on our Web site at <http://www.kramerelectronics.com>

## 2.1 Quick Start

This quick start chart summarizes the basic setup and operation:



### 3 Overview

The **PT-4 iREX** is an IR repeater that lets you control up to four machines<sup>1</sup> via their remote control transmitters from a distance.

In particular, the **PT-4 iREX**:

- Lets you operate machines that are stacked away in closets, cabinets, and even other rooms
- Can operate at a distance of approximately 75 meters<sup>2</sup> (between the controlled machine and the **PT-4 iREX**)
- Has an IR sensor
- Has an external IR receiver<sup>3</sup> which lets you control the **PT-4 iREX** from a distance<sup>4</sup> of approximately 30 meters<sup>5</sup>
- Is 12V DC fed

To achieve the best performance:

- Connect only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality and position your **Kramer PT-4 iREX** away from moisture, excessive sunlight and dust



**Caution** – No operator-serviceable parts inside unit.

**Warning** – Use only the Kramer Electronics input power wall adapter that is provided with this unit<sup>6</sup>.

**Warning** – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

<sup>1</sup> For example, a video player, DVD player, air conditioning system, and any other remote controlled machine

<sup>2</sup> By using the IR emitter extension cables (see Table 2)

<sup>3</sup> Model C-A35M/IRR-03

<sup>4</sup> For example, you can stick the IR external receiver eye on the display, hide the PT-4 iREX in a cabinet, and control it via the external receiver eye

<sup>5</sup> By using the external IR receiver extension cables (see Table 2)

<sup>6</sup> For example: model number AD2512C, part number 2535-000251

## 4 Your IR Repeater

Figure 1 and Table 1 define the **PT-4i REX** unit:

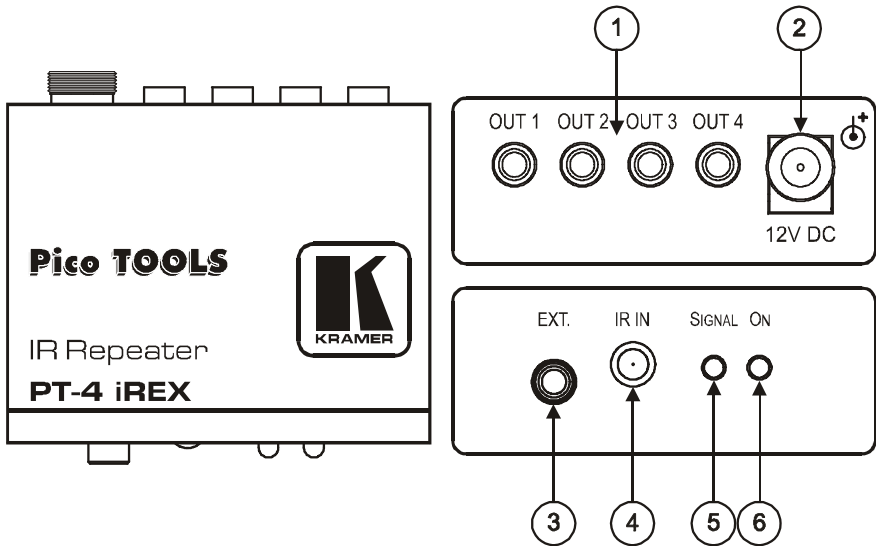


Figure 1: PT-4 iREX IR Repeater

Table 1: Features and Functions of the PT-4 iREX

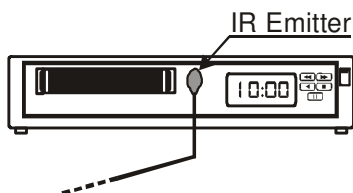
#	Feature	Function
1	OUT 3.5mm Mini Connector	Connect to the IR emitter cable (from 1 to 4)
2	12V DC	+12V DC connector for powering the unit
3	EXT. 3.5mm Mini Connector	Connect to an external remote IR receiver unit for controlling the machine via an IR remote controller (instead of using the front panel IR receiver) <sup>1</sup>
4	IR IN	IR sensor red glass window
5	SIGNAL LED	Lights when an IR link is established
6	ON LED	Lights when the unit is powered

<sup>1</sup> Optional. Can be used instead of the front panel (built-in) IR IN receiver to remotely control the unit. Refer to the External Remote IR Receiver C-A35M/IRR-03 C-A35M/IRR-50 Installation Instructions for details

## 5 Connecting the PT-4 iREX IR Repeater

To connect the **PT-4 iREX IR Repeater**, as illustrated in the example in Figure 3, do the following:

1. Connect the OUT<sup>1</sup>, 3.5mm mini connector (from 1 to 4) to the following IR receivers<sup>2</sup> via the IR emitter cable (see Figure 2):
  - OUT 1 to a DVD player
  - OUT 2 to a video player
  - OUT 3 to an amplifier
  - OUT 4 to a plasma display
2. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.



*Figure 2: Connecting the IR Emitter*

To operate any of the connected machines, use a remote control<sup>3</sup> pointed to the IR Repeater<sup>4</sup> that is located at a place of your convenience. The IR signal from the remote control is transmitted from the **PT-4 iREX**, via an IR emitter cable, to the appropriate machine.

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1 You can connect up to four IR receivers

2 Stick the IR emitter to the IR receiver window (usually located on the front panel of the video player)

3 You can use a machine's original remote control or a universal remote control

4 Or to the external IR remote receiver (model C-A35M/IRR-03)

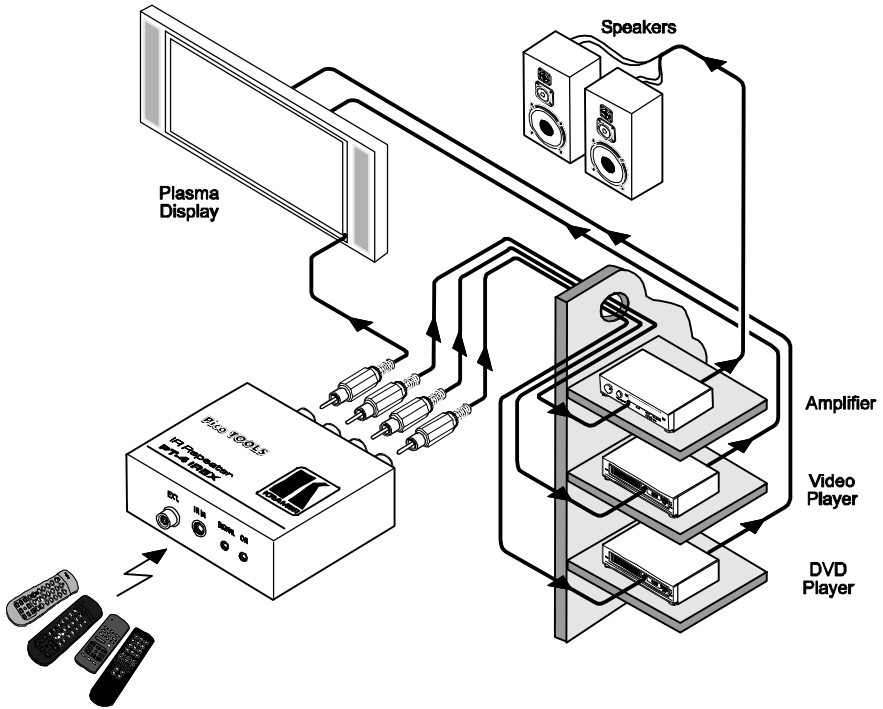


Figure 3: Connecting the IR Repeater

An external Remote IR receiver can be connected<sup>1</sup> to the EXT. connector, letting you control the **PT-4 iREX** from a distance<sup>2</sup> of approximately 30 meters.

<sup>1</sup> Once the Remote IR Receiver cable is connected, the built-in IR receiver is disabled

<sup>2</sup> Model C-A35M/IRR-03



## 6 Technical Specifications

Table 2 defines the technical specifications:

*Table 2: Technical Specifications<sup>1</sup> of the PT-4 iREX*

INPUT:	1 IR Receiver
OUTPUTS:	4 IR emitters on 3.5mm mini connectors
POWER SOURCE:	12V DC, 95mA
DIMENSIONS:	6.22cm x 5.24cm x 2.44cm (2.45" x 2.06" x 0.96") W, D, H
WEIGHT:	0.15kg. (0.55lbs) approx.
ACCESSORIES:	Power Supply, 3.5mm to IR Emitter Control Cable (C-A35/IRE-10), 0.9 meter External Remote IR receiver <sup>2</sup>
OPTIONS:	15 meter cable and 20 meter IR Emitter Extension Cables, 15 meter External IR receiver <sup>3</sup> , Extension cable <sup>4</sup>

<sup>1</sup> Specifications are subject to change without notice

<sup>2</sup> 0.9 meters long, model C-A35M/IRR-03

<sup>3</sup> 15 meters long, model C-A35M/IRR-50

<sup>4</sup> 15 meters long, model C-A35M/A35F-50

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## LIMITED WARRANTY

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

### HOW LONG IS THE WARRANTY

Labor and parts are warranted for seven years from the date of the first customer purchase.

### WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

### WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the Web site [www.kramerelectronics.com](http://www.kramerelectronics.com).
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
  - i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
  - ii) Product modification, or failure to follow instructions supplied with the product
  - iii) Repair or attempted repair by anyone not authorized by Kramer
  - iv) Any shipment of the product (claims must be presented to the carrier)
  - v) Removal or installation of the product
  - vi) Any other cause, which does not relate to a product defect
  - vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

### WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

### HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

### LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

### EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

**NOTE:** All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

- EN-50081: "Electromagnetic compatibility (EMC);  
generic emission standard.  
Part 1: Residential, commercial and light industry"  
EN-50082: "Electromagnetic compatibility (EMC) generic immunity standard.  
Part 1: Residential, commercial and light industry environment".  
CFR-47: FCC Rules and Regulations:  
Part 15: "Radio frequency devices  
Subpart B Unintentional radiators"

### CAUTION!

- Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied DC power supply to feed power to the machine.
- Please use recommended interconnection cables to connect the machine to other components.



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**For the latest information on our products and a list of Kramer distributors, visit our Web site: [www.kramerelectronics.com](http://www.kramerelectronics.com), where updates to this user manual may be found. We welcome your questions, comments and feedback.**



**Caution**

**Safety Warning:**

Disconnect the unit from the power supply before opening/servicing.



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**Kramer Electronics, Ltd.**

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