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# ***ACT-IR210L*** ***IrDA Motherboard Adapter***

## ***User's Manual***



**April 21, 2008**  
**Version 1.5.1.1**

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**FCC & VCCI Compliance Statement**

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.

WARNING-FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user authority to operate this equipment

NOTE: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Reorient or relocate the receiving antenna.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for helps.

This equipment is in the 2<sup>nd</sup> Class category (information equipment to be used in a residential area there to) and conforms to the standards set by the Voluntary Control Council For Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in such residential area.

When used near a radio or TV receiver, it may become the cause of radio interference. Read the instructions for correct handling.

NOTE: Must be used with shielded cable only.

**FOR YOU RECORDS**

For your assistance in reporting this product in case of loss or theft, please record the model and serial number which are located on the bottom of the case. Please retain this information.

Model Number	Serial Number
Date of Purchase	Place of Purchase

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## REVISION HISTORY

Revision History		
Revision	Date	Comment
1.5.1	2/14/2006	Reformat the document
1.5.1.1	4/21/2008	Updated Corporate Address

ACTiSYS reserves the right to make changes without further notice to any products herein to improve reliability, function or design. ACTiSYS does not assume any liability arising out of the application or use of any product or circuit described herein.

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## 1. INTRODUCTION

This document provides instructions to install the ACT IR210L IR Dongle along with Windows 98/ME/2000/XP device driver. It is assumed that the user is familiar with the basic operation of Window 98/ME/2000/XP.

## 2. PARTS CHECK LIST

When you unpack the package, the following items should be found.

1. ACT-IR210L Adapter
2. 5 pins Motherboard Connector
3. User's Guide
4. 5 pins to 6 pins changer

## 3. SYSTEM REQUIREMENTS

To use ACT-IR210L, your computer **MUST** meet the following requirements.

1. Window 98/ME/2000/XP.
2. Built in infrared I/O controller or super I/O chip on the motherboard with infrared connector available and documented in the user's manual.

## 4. BIOS SETUP

You **MUST** setup BIOS **FIRST**. It assumed that your IR Dongle would be installed to serial Com port 2 before install the device driver.

1. Choose **PNP & PCI** from  
**BIOS SETUP**  
**PNP OS Installed: NO**  
**Resource Controlled by: Manual**

2. Choose **Integrated Peripherals** from **BIOS SETUP**  
**Onboard UART2 Serial Port 2 : 2F8H/IRQ3**  
**Onboard IR function: SIR, HPSIR or IrDA or 3/16 baud**  
**RXD,TXD Active: Hi,Lo**  
**IR Transmission delay: Disable**  
**IR FUNCTION DUPLEX: HALF**  
**IR Use Pins: IR-RX2,TX2**

## 5. WINDOWS 98/ME/2000/XP INSTALLATION GUIDE

**Note:** If you do not change your computer BIOS setting, **STOP** here and go to Chapter **BIOS SETUP**.

**Note:** If your computer system has installed with other device on the same com port before, you **MUST** uninstall the devices first. ACT-IR210L would **NOT** work with your system anymore if the devices are uninstalled improperly because some drivers are still there and can cause conflicts with ACT-IR210L driver.

**Note:** If your computer system has installed any **IrDA** device before, ACT-IR210L would **NOT** work with your system. You **HAVE** to reinstall your Windows again.

If your motherboard has built-in infrared I/O controller or super I/O chip, Windows will automatically install the driver if the IrDA is enabled in BIOS settings.

Plug the ACT-IR210L to the Din8 connector and it will work.

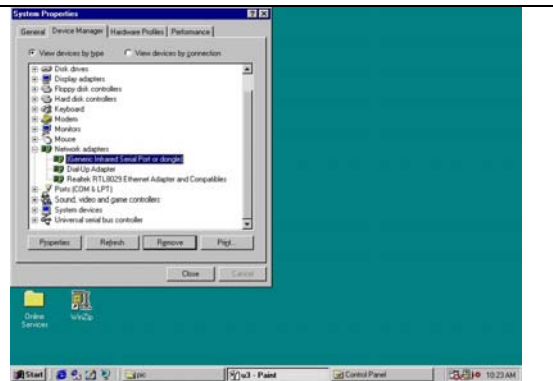
If your computer operates under Windows 98 O.S, you may need to insert Windows 98 CD to your driver.

Following are the instructions to properly uninstall the ACT-IR210L under Windows 98, Me, 2000, XP.

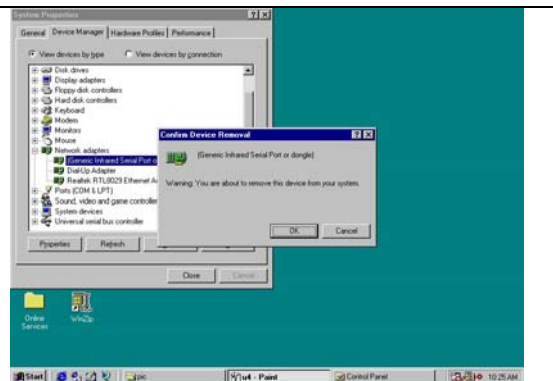
## 6. WINDOWS 98 UNINSTALLATION GUIDE

1. Boot up your computer system.
2. Click **Control Panel**.
3. Double click **System** Icon.
4. Click **Device Manager** tab.
5. Highlight **Infrared Communication Device**, and then click **Remove**.
6. Click **OK** in the **Confirm Device Removal** box.

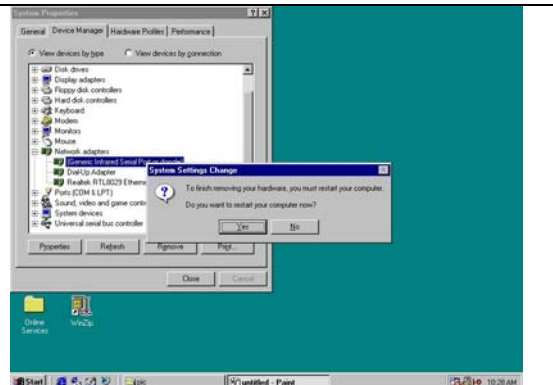
7. Highlight (**Generic Infrared Serial Port or Dongle**), then click **Remove**.



8. Click **OK** in the **Confirm Device Removal**.



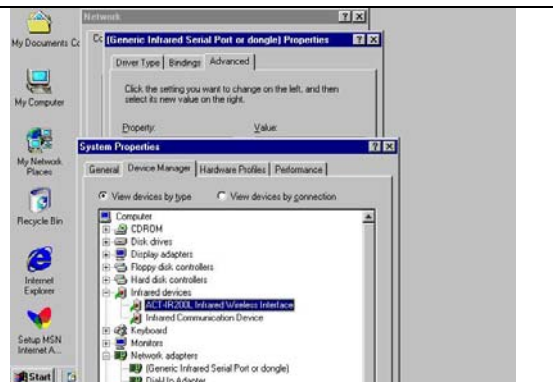
9. Click **Yes** to restart your computer.



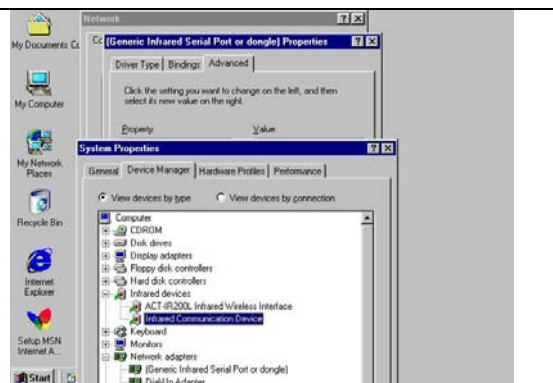
## 7. WINDOWS ME UNINSTALLATION GUIDE

1. Double click **System** icon on **Control Panel**

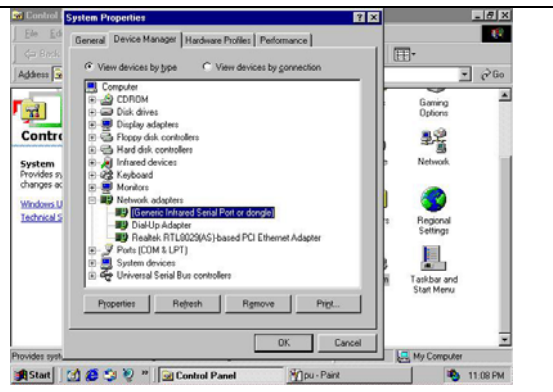
2. Go to **Device Manager**, highlight the items in the **Infrared devices**, then click **Remove** button.



3. Highlight the **Infrared Communication Device** in the **Infrared devices**, then click **Remove** button.



4. Highlight **(Generic Infrared Serial Port or dongle)**, click **Remove** button. Then Click **OK** button.



5. The device has been successfully uninstalled.

6. Close **Device manager**, restart your computer.

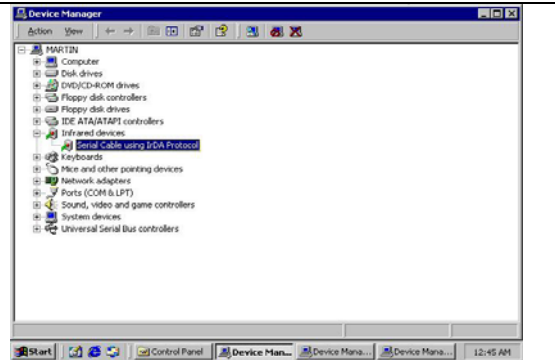
## 8. WINDOWS 2000 UNINSTALLATION GUIDE

1. Boot up your computer system.
2. Click **Control Panel**.
3. Double click **System** Icon.

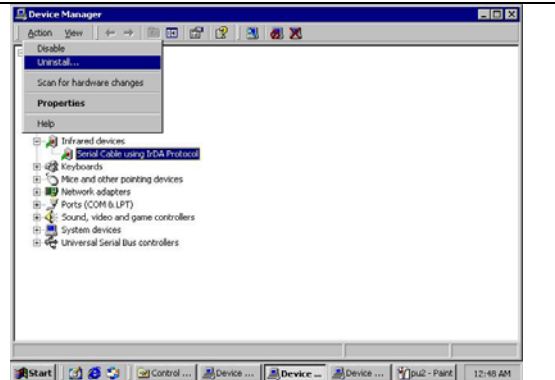
4. Click **Hardware** tab, then click **Device Manager** button.



5. Click **Infrared devices**, then highlight **Serial Cable using IrDA Protocol**.



6. Click **Action** and then **Uninstall**.



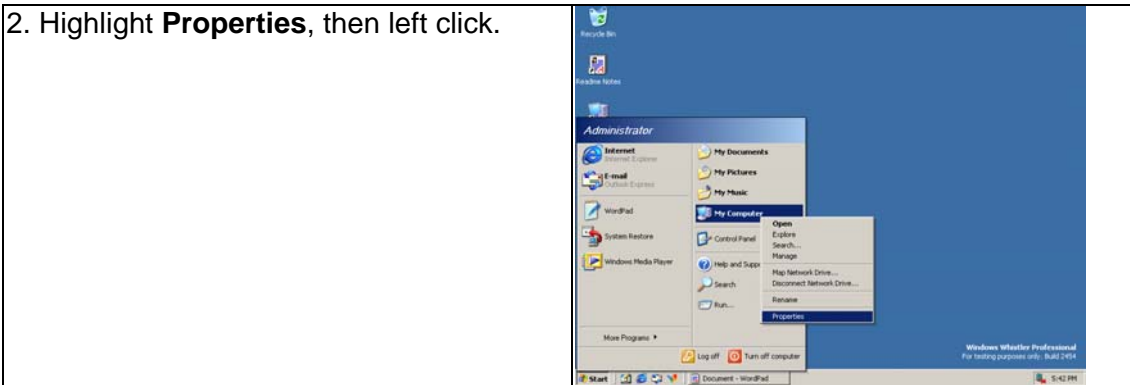
7. The device has been uninstalled, close **Device manager**, restart your computer.

## 9. WINDOWS XP UNINSTALLATION GUIDE

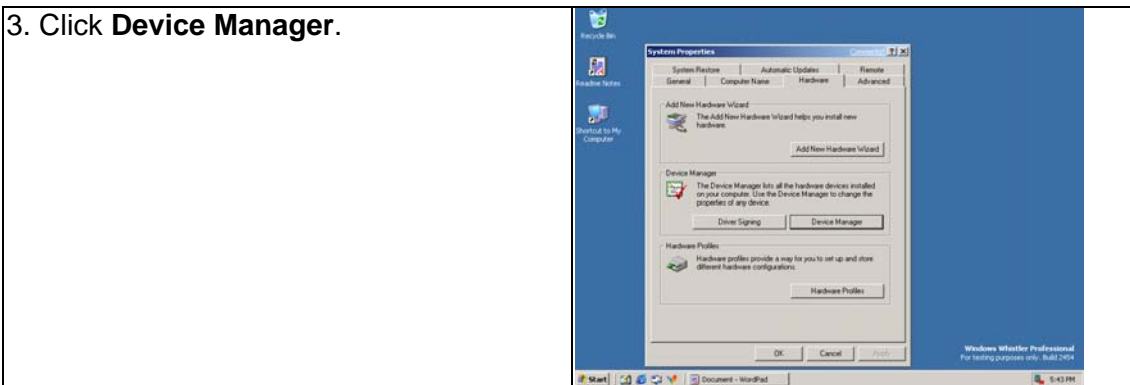
1. Highlight **My Computer**, then right click.



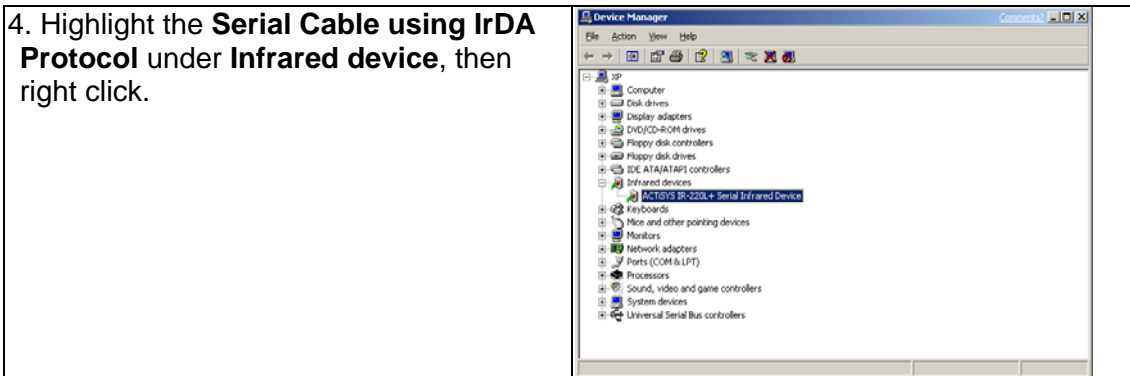
2. Highlight **Properties**, then left click.



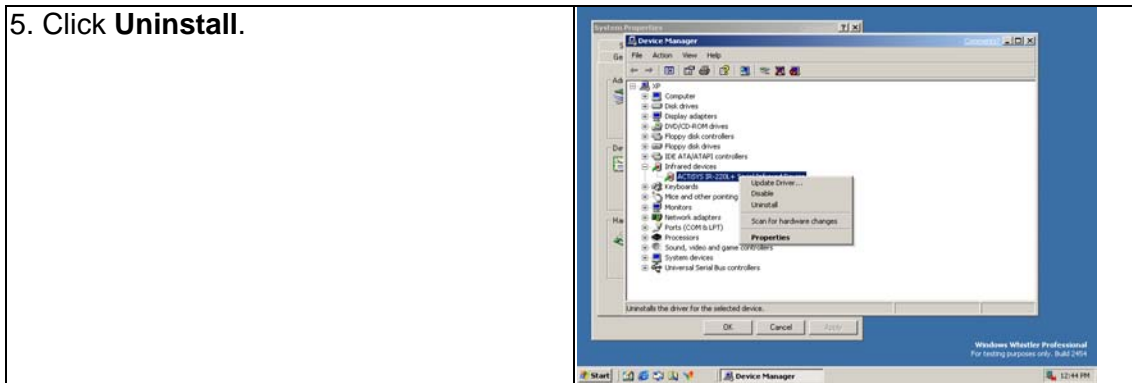
3. Click **Device Manager**.



4. Highlight the **Serial Cable using IrDA Protocol** under **Infrared device**, then right click.



5. Click **Uninstall**.



6. Click **OK**, you have successfully uninstalled the device on your system.

7. Please close **Device manager**, restart your computer.

## 10. TROUBLE SHOOTING

For help on general and miscellaneous problems you may be experiencing with your printing, refer to the following pages for possible solutions. Look up your problem and try the solution as following.

SYMPTOM	PROBLEM	Solution
Can not establish link (General)	<ol style="list-style-type: none"> <li>1. The two IR devices are not aligned properly.</li> <li>2. Distance is too near or far.</li> <li>3. The device is inactivated.</li> <li>4. The device is not installed properly.</li> <li>5. BIOS setting is wrong</li> </ol>	<ol style="list-style-type: none"> <li>1. Properly align them again.</li> <li>2. Move one device to a proper distance.</li> <li>3. Enable the device by IR monitor.</li> <li>4. Refer to Uninstallation Guide to remove the device, then reinstall again.</li> <li>5. Correct BIOS setting.</li> </ol>
File Transfer between IR-equipped PDA and ACT-IR device-attached host computer stops before finishing up and an error message appears.	The infrared communication is interfered. For example, something blocks out the infrared beam or the burst of string light source, etc. Software does not support the IrDA controller chip on the motherboard. Serial port is occupied and not available for IR transmission.	Check to find out the source of interference and eliminate it before trying again. If you were restoring data, simply try again. If you were doing backup something the PDA does not reset its flags and keeps stopping at the same position unless you press the RESET button once. Be very careful. DO NOT initialize (press ON key and RESET button at the same time) your PDA. Otherwise you may lose all your data. Make proper model # selection in the software as specified in your PC system User's manual. Make sure to disconnect modem, etc. from the serial port to make it available for IR transmission.

## 11. SPECIFICATIONS

**Model** : ACT-IR210L+  
**Carrier** : Infrared radiation (peak wavelength: 850 to 1050nm)  
**Communication Distance:**  
 From 0 cm to 250 cm.  
 For best results, from 10 cm (3.95 in) to 150 cm (4 ft. 11.05 in)

### IrDA-IR:

**Baudrate** : 9.6,19.2,57.6,115.2K bps  
**Parity Bit** : None  
**Data** : 8 bit  
**Stop Bit** : 1 bit  
**Error Check** : CRC

**Connector** : 5-pins connector to motherboard  
**Power Source** : Motherboard  
**Power Consumption** : 0.30mW (11mA max.)  
**Operating temperature:** 0°C to 40°C (32°F to 104°F)  
**Dimensions (Inches)** : 2.0"L x 1.63"W x 0.62"H (51mm x 41mm x 16mm)  
**Weight** : 2.0 oz (54 gr.)  
**Accessories** : User Manual

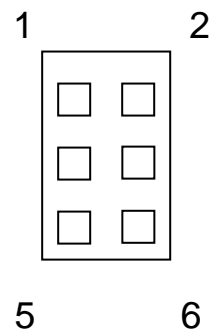
### Pin Assignments:

#### 5-PIN CONNECTOR

Pin	Color	Symbol	I/O	Function
1	Red	VCC	O	+5V Power Supply
2	Blue	NC	-	Non Connected
3	Yellow	IRRX	I	IR Receive
4	Black	GND	-	Reference ground (0V) for all signals
5	Green	IRTX	O	IR Send

#### 5 pins to 6 pins changer

Pin	P1	P2
1	VCC	NC
2	NC	NC
3	IRRX	GND
4	GND	VCC
5	IRTX	IRRX
6		IRTX



## 12. WARRANTY INFORMATION

ACTiSYS Corporation warrants to the first consumer purchaser, for a period of 1 year from the date of purchase, that this wireless interface (The Product) will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof at no charge to the purchaser for parts or for labor.

This warranty does not apply to any appearance items of the Product, any consumable items such as paper, ink ribbon, or batteries supplied with the Product, or to any equipment or any hardware, software, firmware, or peripheral other than the Product. This warranty does not apply to any Product the exterior of which has been damaged or defected, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design, construction or interfacing. Tampering With Label Voids Warranty.

In order to enforce the rights under this limited warranty, the purchaser should mail, ship, or carry the Product, together with proof of purchase, to ACTiSYS .

The limited warranty described above is in addition to whatever implied warranties may be granted to purchasers by law. To the extent permitted by applicable law, ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO A PERIOD OF 1 YEAR FROM THE DATE OF PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described above, nor to extend the duration of any warranties beyond the time period described above on behalf of ACTiSYS Corporation.

The warranties described above shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described above, shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall ACTiSYS Corporation be liable or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than ACTiSYS technician. Nor shall ACTiSYS Corporation be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.



## 13. CONTACT INFORMATION

**GO WIRELESS WITH ACTiSYS IR**



The graphic features the ACTiSYS logo at the top center with the tagline "The Wireless Infra-red Expert". Below the logo is a list of three bullet points: "IrDA Protocol Software For Portable Devices", "IrDA Test Software For Hardware Systems", and "IrDA Printer And Computer Adapters". The central part of the graphic is divided into three sections: "115.2K, 4M and 16M bps" showing a computer mouse and keyboard, "IR2000L" showing a cable and adapter, and "IR220L/L+" showing another cable and adapter. The bottom section is labeled "IR100M/1000M" and shows a laptop. The entire graphic is surrounded by various electronic devices like a printer, PDA, mobile phone, camera, and another laptop, all connected by red lines.

- ◆ IrDA Protocol Software For Portable Devices
- ◆ IrDA Test Software For Hardware Systems
- ◆ IrDA Printer And Computer Adapters

115.2K, 4M and 16M bps

IR2000L

IR220L/L+

IR100M/1000M

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