

# Installation and Operation Guide

*It's Under Control®*

## CPB-1

Control Port Connecting Block



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## DECLARATIONS



### **DECLARATION OF CONFORMITY (DOC)**

The Declaration of Conformity for this product can be found on the RTI website at: [www.rticorp.com/declaration](http://www.rticorp.com/declaration)

### SAFETY SUGGESTIONS

**Read Instructions.** Read all safety and operating instructions before operating the unit.

**Retain Instructions.** Keep the safety and operating instructions for future reference.

**Heed Warnings.** Adhere to all warnings on the unit and in the operating instructions.

**Follow Instructions.** Follow operating instructions and instructions for use.

**Heat.** Keep the unit away from heat sources such as radiators, heat registers, stoves, etc., including amplifiers that produce heat.

**Power Sources.** Connect the unit only to a power supply of the type described in the operating instructions, or as marked on the unit.

**Power Cord Protection.** Route power supply cords so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to the cords at plugs, at convenient receptacles, and at the point at which they exit from the unit.

**Water and Moisture.** Do not use the unit near water—for example, near a sink, in a wet basement, near a swimming pool, near an open window, etc.

**Object and Liquid Entry.** Do not allow objects to fall or liquids to be spilled into the enclosure through openings.

**Servicing.** Do not attempt any service beyond that described in the operating instructions. Refer all other service needs to qualified service personnel.

**Damage Requiring Service.** The unit should be serviced by qualified service personnel when:

- The power supply cord or the plug has been damaged.
- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- The unit does not appear to operate normally or exhibits a marked change in performance.
- The unit has been dropped or the enclosure has been damaged.

#### WARNING!

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,  
DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE.**

## LIMITED WARRANTY AND DISCLAIMER

Remote Technologies Incorporated warrants its products for a period of one (1) year from the date of purchase from Remote Technologies Incorporated or an authorized Remote Technologies Incorporated distributor.

This warranty may be enforced by the original purchaser and subsequent owners during the warranty period, so long as the original dated sales receipt or other proof of warranty coverage is presented when warranty service is required. Except as specified below, this warranty covers all defects in material and workmanship in this product. The following are not covered by the warranty:

Damage resulting from:

1. Accident, misuse, abuse, or neglect.
2. Failure to follow instructions contained in this Guide.
3. Repair or attempted repair by anyone other than Remote Technologies Incorporated.
4. Failure to perform recommended periodic maintenance.
5. Causes other than product defects, including lack of skill, competence or experience of user.
6. Shipment of this product (claims must be made to the carrier).
7. Being altered or which the serial number has been defaced, modified or removed.

Remote Technologies Incorporated is not liable for any damages caused by its products or for its failure of its products to perform, including any lost profits, lost savings, incidental damages, or consequential damages.

Remote Technologies Incorporated is not liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation, commercial loss, any claim made by a third party or made by you for a third party.

Remote Technologies Incorporated's liability for any defective product is limited to repair or replacement of the product, at our option.

If your CPB-1 Control Port Connecting Block needs service, please contact Remote Technologies Incorporated by telephone, fax or E-mail for return information. **Please do not return products to Remote Technologies Incorporated without return authorization.**

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## **CHAPTER 1 | WELCOME**

### **Thank you for using the CPB-1 Control Port Connecting Block.**

The CPB-1 Control Port Connecting Block provides a cost effective solution for one-room installations such as classrooms, that require an in-wall controller to provide infrared and RS-232 control of local devices. The CPB-1 provides power to one RTI in-wall system controller and has two output ports that allow the connection of up to two single or dual infrared emitters. It also incorporates an RS-232 port for control of devices without the need for a separate control processor.

Before using the CPB-1, please read and follow all of the instructions in this guide.

### **IMPORTANT NOTES**

Please read these important notes about the CPB-1:

- The CPB-1 should be placed in an area where it is around normal room temperature (between 50° F to 90° F).
- Do not let the CPB-1 get wet. It should not be handled with wet hands or placed in an area where it could get wet.
- Do not subject the CPB-1 to smoke, dust, or vibrations.
- Use only the power supply that is provided with the CPB-1. Using the wrong type of power supply may result in permanent damage.
- Do not disassemble the unit. Service and repair should be performed by an authorized technician only.

### CHAPTER 1 | PRODUCT CONTENTS

Contents within the box include the following items:

- One (1) CPB-1 Control Port Connecting Block
- One (1) 16VDC 1.6A Power supply
- One (1) RJ-45 (female) to DB-9 (male) Adapter
- One (1) Operation Guide

### UNPACKING AND INSPECTION

After unpacking your new CPB-1 Control Port Connecting Block, save all of the packing materials in case you ever have to ship the unit.

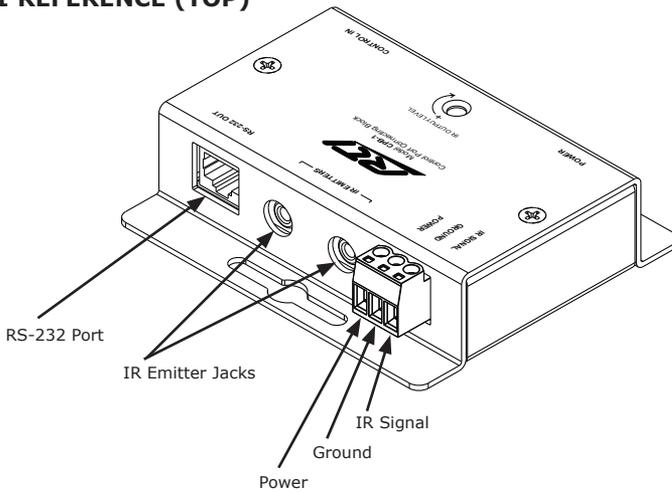
Thoroughly inspect the CPB-1 and packing materials for signs of damage. Report any damage to the carrier immediately. Report any equipment malfunctions to RTI or an authorized RTI distributor.

## CHAPTER 2 | FEATURES

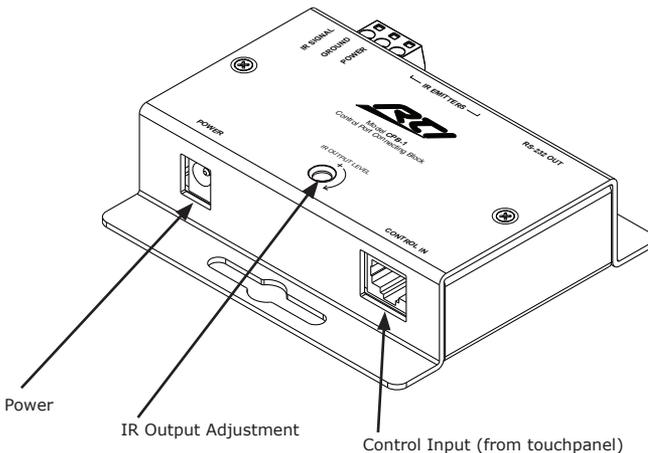
The CPB-1 provides superior quality and reliability as well as these specific features:

- Provides power for one in-wall controller.
- Two infrared emitter outputs.
- Variable IR output power.
- Allows RTI in-wall controllers to communicate via one-way RS232 to devices (without an RTI Control Processor).
- Sturdy steel construction.
- 16VDC/1.6A power supply included.

### CPB-1 REFERENCE (TOP)



### CPB-1 REFERENCE (BOTTOM)





## CHAPTER 3 | INSTALLATION

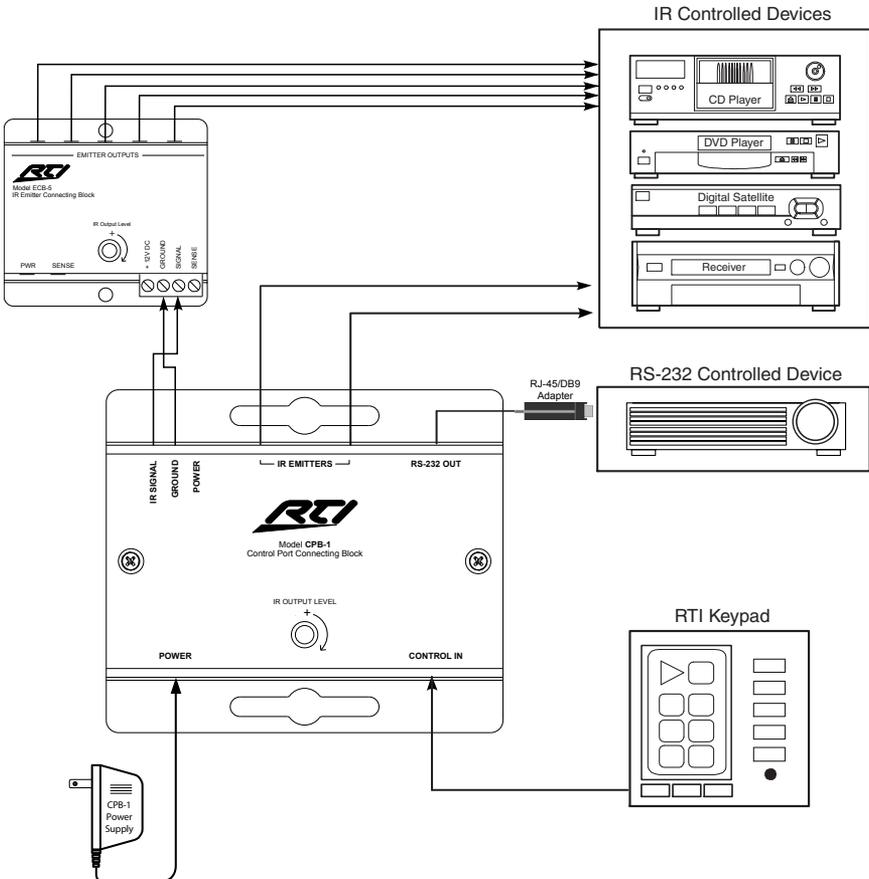
### MOUNTING

The CPB-1 can be located on a secure, flat surface or mounted horizontally or vertically using the two mounting holes in the enclosure.

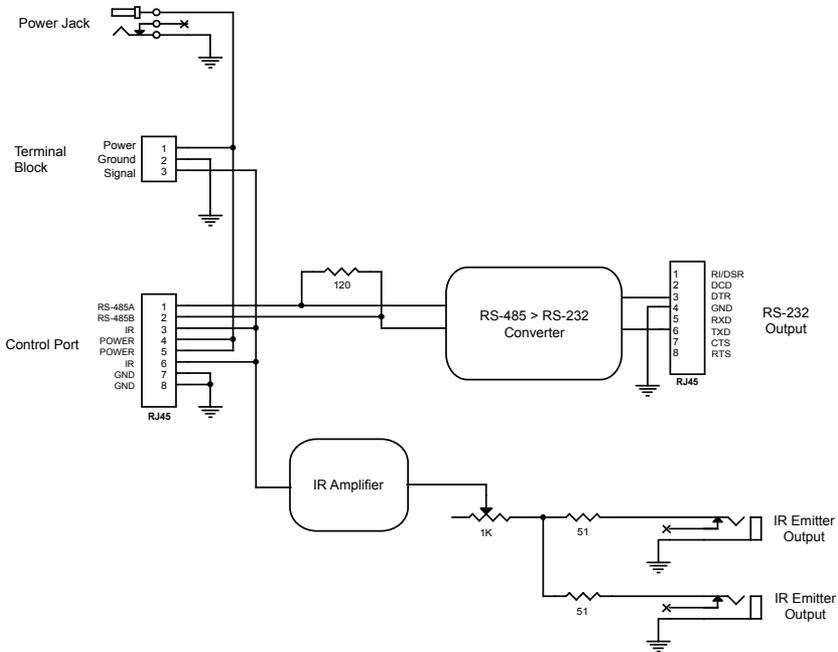
### POWERING THE CPB-1

- AC Adapter (recommended method): Connect the included AC adapter to the power jack on the CPB-1.
- Phoenix Connector (alternate method): Connect the leads from a power supply to the Power/Ground terminals of the phoenix connector.

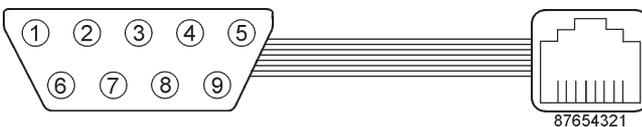
### INSTALLATION DIAGRAM



### CPB-1 SCHEMATIC



### RJ-45 > DB9 ADAPTER PINOUT



#### DB-9 Connector Pin Out

Pin	Signal Name	Signal Description
1	DCD	Carrier Detect
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	Signal Ground/Common
6	DSR	Data Set Ready
7	RTS	Request To Send
8	CTS	Clear To Send
9	NC	Not Connected

#### RJ-45 Connector Pin Out

Pin	Signal Name	Signal Description
1	DSR	Data Set Ready
2	DCD	Carrier Detect
3	DTR	Data Terminal Ready
4	GND	Signal Ground/Common
5	RXD	Receive Data
6	TXD	Transmit Data
7	CTS	Clear To Send
8	RTS	Request To Send

## CHAPTER 4 | SPECIFICATIONS

Power Supply	+16VDC, 1.6A
IR Output Ports	Two 3.5mm 2-conductor jacks, designed for industry standard IR emitters.
IR Output Drive	100mA maximum (per port, adjustable) 200mA maximum (high IR output port)
Control Port	RS-485/IR/Pwr
RS-232 Ports	One, RJ-45 Connection 110 bps - 115 Kbps, (Cat5 cable adapter included)
IR Frequency Transmission Range	15kHz - 460kHz
Mounting	Wall-mount or free standing
Dimensions (W x H x D)	4.0in (101mm) x 1.1in (28mm) x 3.5in (89mm)
Weight	8.4oz (240g)
Warranty	One Year (Parts & Labor)

All specifications subject to change without notice.



## **CHAPTER 5 | SERVICE AND SUPPORT**

For news about the latest updates, new product information, and new accessories, please visit our web site at:

[www.rticorp.com](http://www.rticorp.com)

### **CONTACTING RTI**

For general info, you can contact RTI at:

Tel. (952) 253-3100

Fax (952) 253-3131

[info@rticorp.com](mailto:info@rticorp.com)

### **RTI TECHNICAL SUPPORT**

At RTI, customer service and satisfaction is an utmost priority. If you are encountering any problems or have a question about your RTI product, please contact RTI Technical Support for assistance.

RTI provides technical support by telephone, fax or e-mail. For the highest quality service, please have the following information ready, or provide it in your fax or e-mail.

- Your Name
- Company Name
- Telephone Number
- E-mail Address
- Product model and serial number (if applicable)

If you are having a problem with hardware, please note the equipment in your system, a description of the problem, and any troubleshooting you have already tried.

If you are having a problem with software, please note what version you have installed, the operating system on your PC, a description of the problem, and any troubleshooting you have already tried.

If you are calling about a software or programming question or problem, please be at you computer when you place your call. This will considerably speed up the troubleshooting process.

For technical support or assistance with your CPB-1, software, or accessories, contact RTI at:

(952) 253-3137

[support@rticorp.com](mailto:support@rticorp.com)

[www.rticorp.com](http://www.rticorp.com)

For questions regarding service or repair of your CPB-1, contact RTI at:

(952) 253-3136

[service@rticorp.com](mailto:service@rticorp.com)

[www.rticorp.com](http://www.rticorp.com)

**Please do not return products to RTI without return authorization.**

### CHAPTER 5 | SERVICE AND SUPPORT

#### Shipment of CPB-1 for Service

RTI will pay all labor and material expenses for all repairs covered by this product's warranty. If necessary repairs are not covered by warranty, or if a unit is examined which is not in need of repair, you may be charged for the repairs or examination.

If it is necessary to ship the CPB-1 Control Port Connecting Block for service:

- Please pack it securely (we suggest that it be insured).
- Do not include accessories such as power cords or manuals unless instructed to do so.

You must pay any shipping charges incurred in getting your CPB-1 Control Port Connecting Block to RTI. RTI will pay reasonable return shipping charges via a carrier of our choice to any destination within the United States if the repairs are covered under warranty.

A copy of the original dated sales receipt must be provided whenever warranty service is required. You will need this receipt to establish the date of purchase.

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