



# Model Railroad Radio Repeater (RPT-1)

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## User Manual



**WARNING:** Only connect a RPT-1 module to an approved USB port.



**WARNING:** This product is not recommended for persons under fourteen (14) years of age.



**WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



**WARNING:** Temperature: Operating 32F to 95F, Storage 0F - 110F



**WARNING:** Operate and store in dry environment only. Relative Humidity: Operating 20% to 90% non-condensing, Storage 10% to 95% non-condensing.

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**Revision 1.00**

## Introduction

Thank you for purchasing this Ring Engineering product we hope you find this product to be a great addition to your model railroad layout.

Please read all warnings and instructions before installation and use. For the latest information including the latest revision of this manual please visit our Internet site at [www.RingEngineering.com](http://www.RingEngineering.com).

The RPT-1 is used to add Direct Radio + NET radio repeater to your RailPro layout. It can be used to both increase your radio range and improve the radio coverage. You can use multiple RPT-1 to extend the radio range of a RailPro Handheld Controller to hundreds of feet!

## Use Radio Repeater to Extend Radio Range!



## Use Radio Repeater to Eliminate Dead Spots



**NOTE: Multiple Radio Paths can make Radio Communications perfect!**  
**NOTE: Add multiple repeaters to allow for many communication paths!**

All Radios (including Bluetooth and WiFi) suffer from multi-path distortion. This is where a radio wave can bounce off an object and come back and combine with the original signal in a way that it degrades the signal. This typically can cause small angles to have dead spots. By adding a RailPro Radio Repeater you can eliminate this radio problem completely.

## ***Installation***

### **Step 1 – Power up the RPT-1.**

To power up the RPT-1 plug it into a proper USB port.

**TIP:** You can plug the RPT-1 into a power bank and make a portable radio repeater!

**TIP:** For every 1000mA hour power bank rating you can run a RPT-1 for about 60 hours. So for a 5000mA hour power bank you can power a RPT-1 for more than 300 hours (30 days - running 10 hours a day).

### **Step 2 – Find the RPT-1 on your Handheld Controller.**

From the Main Page on your handheld controller press 'Find Product' button.

**IMPORTANT:** Your HC-2 or HC-2b must be at program revision 2.52 or newer to Find the RPT-1. Your HC-3 needs to be Revision 1.09 or newer to find the RPT-1.

### **Step 3 – Select the RPT-1 to be used as a Repeater.**

From the Main Page of the handheld controller press 'Adjust Settings', then press 'Next Page' button. Select the RPT-1 to be used as a repeater. Press 'Exit Page' button and then 'Save' button.

## **Your RPT-1 is now ready to use!**

**TIP:** You can change the name of the RPT-1 to one that makes sense for you. This can be real important if you have more than one radio repeater. From the Main Page press Accessories then select the RPT-1. Press the 'Adjust Settings' button (round button on the left). Then you can change the name.

**IMPORTANT:** You can not change the picture of the RPT-1.

## Warranty

### Limited One Year Warranty

Ring Engineering, Inc. (Ring Engineering) warrants that for a period of one year from the date of purchase, this product will be free from defects in material and workmanship. Ring Engineering, at its option, will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty.

This warranty is valid for the original retail purchaser from the date of initial retail purchase and is not transferable. Ring Engineering dealers, distributors, or retail stores selling Ring Engineering products do not have the right to alter, modify, or any way change the terms and conditions of this warranty.

The warranty does not cover normal wear of parts or damage resulting from negligent misuse or modification of the product. Further, the warranty does not cover Acts of God, such as fire, flood, hurricanes, and tornadoes.

Ring Engineering shall not be liable for any incidental or consequential damages caused by the breach of any express or implied warranty or condition. Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above warranty. Ring Engineering disclaims all other warranties or conditions, express or implied statutory or otherwise. Some states or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

To obtain warranty service contact Ring Engineering at:

Email: [info@ringengineering.com](mailto:info@ringengineering.com)

or Phone (219) 322-0279

to get a return authorization and return instructions.

If your Ring Engineering product is not covered by warranty, or has been damaged, an estimate of repair costs or replacement costs will be provided to you for approval prior to servicing or replacement.