
Prentke Romich Company's

Infrared Receiver (IRR)

Instructions

PRENTKE ROMICH COMPANY

Corporate Headquarters:

1022 Heyl Rd. • Wooster, Ohio 44691

Telephone: (330) 262-1984

Fax: (330) 263-4829

E-Mail Address: info@prentrom.com

Web Site Address: www.prentrom.com

Worldwide Headquarters:

Prentke Romich International, Ltd.

Whitegates • Swinstead • Grantham • Lincs. • NG33 4PA • UK.

Fax: 44 1476 550872

E-Mail Address: info@prentromint.com



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⚡ELECTRONIC INTERFERENCE INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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. You can determine whether this product is causing interference in your radio or television by turning this product off. If the interference stops, it was probably caused by this product or one of its accessories. You can attempt to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move this product to one side or the other of the television or radio.
- Move this product farther away from the television or radio.
- Plug this product into an outlet that is on a different circuit from the television or radio ; that is, this product should be controlled by different circuit breakers/fuses from the television or radio.
- If necessary, contact a Prentke Romich Company service technician for assistance.

Changes or modifications to this product which are not authorized by Prentke Romich Company could exceed FCC limits and negate your authority to use this product.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouiller du Canada. This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

↻ The IRR case may be cleaned with a damp cloth.

 **Warning!**

**Before you change any settings on the IRR,
or change settings on a device *connected* to the IRR,**

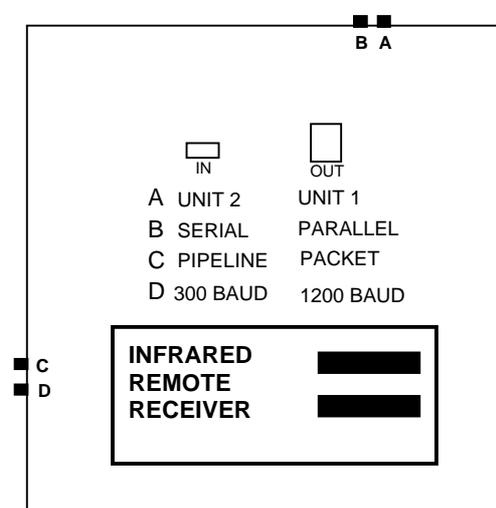
UNPLUG THE BATTERY CHARGER FROM THE IRR!

**When you are ready to use the IRR,
make sure the battery charger is plugged back in.**

The Infrared Receiver (IRR)

Important Note: The infrared window on the IRR and the infrared area on your communication device must be able to 'see' each other in order for the IRR to receive the signals that the communication device sends. However, if the IRR and the communication device are **closer** than 18 inches and directly facing each other, the IR signals from the communication device may be too strong for the IRR to read. Either move the two devices further apart, or place the communication device so that its infrared area is at an angle to the IRR.

Turn the IRR over so that you are looking at the label on the bottom of the case.



Button B Sets the Printer Port

Button **OUT** = Parallel Port is set for parallel printer

Button **IN** = Serial Port is set for serial printer

Set Button B if you are connected to a printer.

The IRR supports a serial or parallel printer. Most IBM serial or parallel printers should work with the IRR. Macintosh printers that can be connected to a 9-pin serial port may also work with the IRR. If you are connected to a computer, the position of this button does not matter

Button A Sets the IRR Unit Address

Button **OUT** = Unit 1

Button **IN** = Unit 2

Set Button A if you are in a room where there is more than one IRR and AAC device that will be sending the same signals at the same time but for a different computer or printer.

One IRR and all the devices it will be receiving signals from should be assigned Unit Number 1. The second IRR and all the devices it will be receiving signals from should be assigned Unit Number 2.

Set the communication aid' sUnit Number in th&R ADDRESS MENU (see your operator' s manual for information about this menu). Set the address for the DIRECTOR II to match the AAC device setting. (See the DIRECTOR II manual for address information.)

The IRR address must be the same as the sending device (e.g., a communication device with built-in IR or the DIRECTOR II). The default is Unit 1.

Button C Sets the IRR Protocol

Button **OUT** = **Packet**

Button **IN** = **Pipeline**

Set this button to tell the IRR how to read the infrared signals that it receives.

Packet Protocol

The IRR communication protocol has a "packet" feature that allows you to have more than one AAC device and IRR in the room, with all of them on at the same time. You designate each separate infrared device by a Unit number. Packet protocol also checks for errors in the infrared communication and screens out infrared information from outside sources. This provides for more accurate infrared communication.

➡ The IRR baud rate **must** be set at 1200 if you are using Packet Protocol. If you are using a DIRECTOR II you **must use Packet Protocol**.

➡ If you are in a multiple IRR and communication device environment, you **must** use Packet Protocol *and* set a Unit Number (Button B).

Pipeline Protocol

Pipeline protocol does not provide infrared communication with error checking. It does not provide you with the ability to use Unit numbers for more than one infrared device. It does not screen out infrared information from other sources. This means that accurate infrared information may be difficult to achieve in some settings. Pipeline Protocol can only be used with a communication device that has built-in IR.

➡ If you are using a communication device that has built-in IR along with an older T-TAM, a computer and an IRR, you can use Pipeline Protocol and set the baud rate (Button D) to 300. If you have a T-TAM with a 300/1200 baud switch on it you can use 1200 baud and PACKET protocol.

➡ If you are using a DIRECTOR II, your T-TAM must be updated to support 1200 baud. Call the PRC Service Department for more information.

Button D Sets the Baud Rate

Button **OUT** = **1200**

Button **IN** = **300**

This setting determines how fast information is transferred between devices.

See the T-TAM note **above** for baud information.

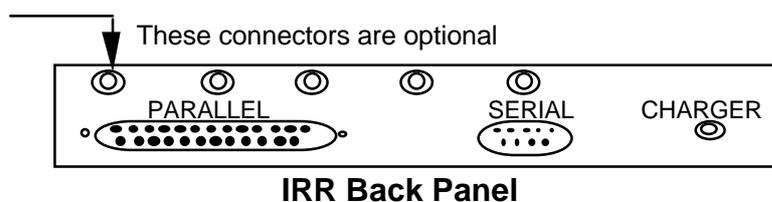
If you are using an IRR, communication device with built-in IR, T-TAM or SerialKeys, the baud rate you select **must be the same** in all devices.

🔁 **A Note about the DIRECTOR II and Baud Rates:**

The DIRECTOR II supports two separate baud rates. This means you can use a different baud rate for your communication device and your IRR. For example, the DIRECTOR II can be set to *receive* information from your communication device at 300 or 1200 baud. You can set the IRR for 1200 baud and Packet Protocol. and set the DIRECTOR II to *send* information at 1200 baud.. See the DIRECTOR II manual for details.

The IRR baud rate, the DIRECTOR II sending baud rate and the T-TAM or SerialKeys baud rate must all be set to 1200.

About Cables



Cables That Came with Your IRR

Null Modem

This cable has 2 9-pin female ends.

Use this cable with Access DOS, Access Pack or Access for Windows ' 95.

Connect one end of the cable to the SERIAL connector on the IRR and the other end to a serial port on your computer. **RS232 Serial**

RS232 Serial

This cable has a 9-pin male end and a 9-pin female end.

Use this cable with the T-TAM for keyboard emulation.

Connect one end to the SERIAL connector on the IRR and the other to the T-TAM.

A **DB 9-25 Pin Adapter** is included for use with either cable, if needed.

Other Cables You Can Use with the IRR

A **Parallel Cable** connects a parallel printer to the IRR.

Connect one end of the cable to the PARALLEL connector on the IRR and the other end to the parallel printer serial port.

An **MTI-IBM** cable can be connected to the IRR and a Macintosh computer for serial emulation with SerialKeys.

Connect the small end of the MTI-IBM cable to the connector on the back of your Mac that has the picture of a telephone handset on it. Connect the DB-9 adapter to the other end of the cable and plug that end into the SERIAL port on the IRR.

An **AFC-1** cable can be connected to the IRR for computer emulation with an Adaptive Firmware Card (AFC) or KE:NX software.

Connect one end of the cable to the KE:NX. Put the adapter on the other end and connect it to the serial connector on the IRR.

Use an AFC-1 cable with any other emulators that require a Centronics™ connector.

Using the IRR

Connect the IRR to your computer, T-TAM or printer. Plug the BCPS-1 battery charger into the connector labeled CHARGER on the IRR. When the charger is plugged in, a light will appear in the right hand corner of the front window.

When the IRR receives and acknowledges information, one or two lights will flash in the left hand corner of the front window.

The device sending information to the IRR must be in the line-of-sight for the IRR to receive and acknowledge information. This means that the infrared window on the IRR and the infrared window on the device sending information must be able to "see" each other.

If you are using a communication device with built-in IR, and its IR window is closer than 18 inches to the IRR window, the signal from the communication device will overpower the IRR. When this happens, the IRR can't read the signal and you get an error message. Either move the communication device farther away from the IRR or place it so that its IR window is at an angle to the IRR.

Mono Jack Option

This option allows you to have up to five mono jack connectors on the back panel. These mono jacks can be used to operate switch-activated appliances. You can store RELAY commands in your communication device that will activate each mono jack individually or all at once.

IRR Commands

The commands listed below will operate the IRR. You can store these commands in your communication aid under icon sequences. Activate the sequences to send the commands.

If you are using the DIRECTOR II to Send Infrared Information:

Begin storing each command with the <NULL> character the way it is shown below.

Always end each string of characters with a period.

If You Are Using Something Other than the DIRECTOR II to Send Infrared Information:

Omit the <NULL> character and begin storing with the <ESC> character.

Always end each string of characters with a period.

RELAY Commands

When a RELAY ON command is sent, the relay stays On until a RELAY OFF command is sent.

The RELAY ON and RELAY OFF commands can be stored under separate icon sequences so that you can decide how long you want the relay to stay on. However, you may find that it takes you longer than you want to activate the second sequence which turns your relay Off. In this case, you might want to store both commands under one icon sequence. There are two ways to do this. One is to store commands with the SERIAL MARKER tool and the other way is to store the commands with the WAIT ANY KEY tool.

➡ See the **Connecting to and Using the Other Devices** chapter in your communication device' s operator' s manual for more information and examples of storing IR and IRR commands.

IRR Commands that can be Stored in Your Communication Device

<NULL><ESC>IRR,ON.
<NULL><ESC>IRR,OFF.

<NULL><ESC>IRR,RELAYALL,ON.
<NULL><ESC>IRR,RELAYALL,OFF.

<NULL><ESC>IRR,RELAY1,ON.
<NULL><ESC>IRR,RELAY2,ON.
<NULL><ESC>IRR,RELAY3,ON.
<NULL><ESC>IRR,RELAY4,ON.
<NULL><ESC>IRR,RELAY5,ON.

<NULL><ESC>IRR,RELAY1,OFF.
<NULL><ESC>IRR,RELAY2,OFF.

<NULL><ESC>IRR,RELAY3,OFF.
<NULL><ESC>IRR,RELAY4,OFF.
<NULL><ESC>IRR,RELAY5,OFF.

For DIRECTOR II Only

<NULL><ESC>IRT,SERIAL IMMEDIATE, 1200.
<NULL><ESC>IRT,SERIAL IMMEDIATE, 300.
<NULL><ESC>IRT,SERIAL OFF.
<NULL><ESC>IRT,SERIAL ON.

A Note about Character Pacing and Some of the IRR Commands

☞ *Character Pacing: On or Off* may be an option in the OUTPUT MENU on your device. If it is, read the following notes.

When you are using a T-TAM you will probably want to have Character Pacing turned On.

When Character Pacing is turned On you will find that editing text and moving a mouse are slower than you may be used to.

When you have Character Pacing turned **On**, the IRR ON, IRR OFF and all the RELAY commands will not work. You will want to store a macro that will toggle Character Pacing On and Off instead of having to go to the OUTPUT MENU all the time. Information about Assigning Keys and turning Character Pacing On and Off can be found in the operator' s manual for your communication device.

☞ Note:

For information on setting up the IRR with a transmitting device (e.g., Pathfinder, Vanguard or DeltaTalker with built-in IR, the DIRECTOR II, etc.), see the manual for the transmitting device you are using.

