Interwrite PRS High-Speed IR Quick Start

Package Contents

- High-Speed IR Receiver Hub
- USB cable
- Interwrite PRS CD
- *Interwrite PRS User's Guide*
- This *High-Speed IR Quick Start*

Setup and Installation Instructions

Register for Interwrite PRS Updates and view additional information at http://www.gtcocalcomp.com/hs_login.php

Note

Install the Interwrite PRS software first so the appropriate drivers are in place when you install the hardware.

Windows Installation

Interwrite PRS is compatible with Windows 2000 and XP. The PRS application software must be installed on Windows by an *Administrator*.

1. Log in as *Administrator*.
2. Insert the PRS CD in the CD-ROM drive. The PRS Installer will autorun.

   If it doesn't, click on the **Start** button on the Windows Task Bar and select *Run* from the menu. Click on the **Browse** button. Navigate to the CD-ROM drive and double-click on *autorun.exe*.
3. Click on the *Install Interwrite PRS Software* menu option.
4. Follow the onscreen instructions for the software installation.

Mac Installation

Interwrite PRS is compatible with Mac OS X 10.3 and above. The Interwrite PRS application software must be installed on the Mac by an *Admin*.

1. Log in as *Admin*.
2. Insert the PRS CD in the computer's CD-ROM drive. When it appears on your Desktop, double-click on the CD icon.
3. Double-click on the **Install Interwrite PRS** icon.
4. Follow the onscreen instructions for the software installation.

Linux Installation

Interwrite PRS is compatible with every Linux 2.6 kernel with the **udev** file system. The Interwrite PRS application software must be installed on Linux by a user logged in as *root*.

1. Log in as *root*.
2. Insert the PRS CD in the computer's CD-ROM drive. When it appears on your Desktop, double-click on the CD icon.
3. Double-click on **Install Interwrite PRS**.
4. Follow the onscreen instructions for the software installation.

High-Speed IR Receiver Setup and Operation

The High-Speed IR Receiver must be positioned at the front of the room high on the wall where it can capture the line-of-sight signals from the IR Clickers. A glass window on the front of the High-Speed IR Receiver unit contains an IR Sensor reception cone, which has a Reception Angle of approximately 120 degrees. The size and seating arrangement of the room will predict where at the front of the room the High-Speed IR Receiver should be located. Be sure to test transmission reception from everywhere in the room. One High-Speed IR Receiver can receive and process data from over 200 Clickers. Larger rooms with more seating may require more than one High-Speed IR Receiver. Multiple Receivers are usually daisy-chained together.

The High-Speed IR Receiver can be connected to the computer using either a USB connection or an RS232 serial connection. If a single High-Speed IR Receiver is connected via USB, the power supply is not needed. The Receiver gets sufficient power through the USB connection. A serial connection requires the use of the power supply.

When multiple High-Speed IR Receivers are installed, they are daisy-chained together with the second Receiver connected to the primary Receiver, the third Receiver connected to the second, and so on down the chain. The primary Receiver can be connected to the computer using either USB or RS232 serial. However, subsequent Receivers in the chain are connected to each other and to the primary Receiver using cat 5 cables only. The cable is plugged into the upstream (primary) Receiver's ***In*** port and the downstream (secondary) Receiver's ***Out*** port to create the chain. The power supply is always used when multiple Receivers are daisy-chained together. It is connected to the primary Receiver.

An additional power supply may be needed to serve a large number of daisy-chained High-Speed IR Receivers in a custom installation.

Installing the Primary High-Speed IR Receiver

USB Connection

1. Plug the square USB B connector into the High-Speed IR Receiver.
2. Plug the flat USB A connector into an available USB port on your computer.

When the connection is USB, the High-Speed IR Receiver is automatically assigned to a COM Port and that information is communicated to the PRS software. It is not necessary to set the COM Port on the PRS Connection Menu.

Serial Connection

1. Plug the Power Supply into a wall or power strip outlet.
2. Plug the other end of the Power Supply into the High-Speed IR Receiver.
3. Plug one end of the cat 5 cable into the port labelled ***Out*** on the High-Speed IR Receiver.
4. Plug the other end into the Serial Adapter and plug the Serial Adapter into an RS232 serial COM port on the computer.

The RJ45 Connectors on the cat 5 cable are not network connectors. Do not attempt to plug them into a network jack on the computer or wall.

Installing Additional High-Speed IR Receivers

When more than one High-Speed IR Receiver is required for coverage, the Receivers are daisy-chained together using cat 5 cable. One end of the cable will be plugged into the ***In*** port on the primary High-Speed IR Receiver and the other end will be plugged into the ***Out*** port on the second Receiver. Each Receiver in the chain is connected to each other using serial cable, regardless of the type of connection used to connect the primary High-Speed IR Receiver to the computer. The serial cable is always plugged into the ***In*** port on the upstream Receiver and the ***Out*** port on the downstream Receiver in the chain. The last High-Speed IR Receiver in series does not have to be terminated. Please contact Interwrite Learning if you require a special configuration. Contact information is on the back page.

Multiple High-Speed IR Receivers installed using USB connections do not have to be daisy-chained together. Each can be connected to its own USB port on the computer or USB hub. However, cabling issues may make this impractical in a very large classroom.

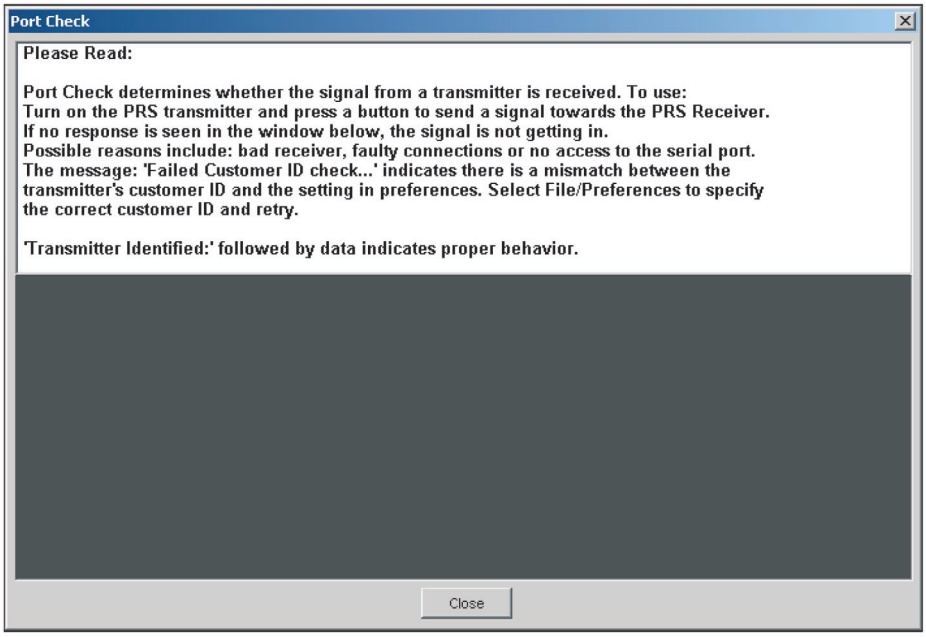
Making the Connection

A USB connection between the High-Speed IR Receiver and the computer is auto-detected, so the installation that uses a USB connection is completed. On the other hand, when the High-Speed IR Receiver is connected to the computer through a serial connection, the PRS software must be told where to pick up data collected by the primary High-Speed IR Receiver. It needs to be told which COM port the Receiver is connected to.

1. Open the PRS application.
2. From the **Connection Menu**, select the COM port the High-Speed IR Receiver is connected to. The Mac lists either the device, or an identifying serial number, that each port is connected to, making it easy to find the correct port connection for the High-Speed IR Receiver. Windows, on the other hand, just lists the available ports on the system. It's up to you to determine which port the Receiver is connected to. If you're not sure, perform the *Port Check* procedure described next to test the computer's COM ports for the connection.

Performing a Port Check

The number of COM ports displayed on the Connection Menu will vary with the number of COM Ports on the computer. Select from the list the COM port to which the High-Speed IR Receiver is connected. If you don't know which COM port it is, or if you want to test the connection, select a COM port in the Connection Menu, click on the *Port Check* menu option, verify the High-Speed IR Receiver is powered-on, and send a signal from a powered-on IR Clicker to the Receiver. If the High-Speed IR Receiver is connected to the COM port you selected in the Connection Menu, a *Clicker Identified* message will appear in the black Port Check window shown below. If the Port Check window remains blank, select another COM port in the Connection Menu and repeat the transmission check process.



Troubleshooting the High-Speed IR Receiver Serial Connection

If the High-Speed IR Receiver is not being recognized on any of the COM Ports, first, check all connections to make sure they are secure. From the PRS Connection Menu, select a COM Port and run a Port Check (described above). Repeat for each COM Port. If the High-Speed IR Receiver still fails to show up, leave it connected and restart the computer. In most cases, the High-Speed IR Receiver will now show up as connected to the COM Port.

The software for some serial devices will take over a COM Port and fail to release it when the device is disconnected. If the primary High-Speed IR Receiver is attached to one of these COM Ports, Windows won't recognize it because the Port has been commandeered by another application. We've seen this behavior when a Palm Pilot, for example, had been connected to the COM Port to which the High-Speed IR Receiver is currently connected.

Regulatory Statements

These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. These devices may not cause harmful interference, and
2. These devices must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits of a Class A 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 the 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.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- 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 help.

This device complies with Part 15 of FCC rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) The device may not cause harmful interference, and (2) The device must accept any interference received, including interference that may cause undesired operation.

The radiated output power is far below the FCC Radio Frequency exposure limits. Nevertheless, each of the devices should be used in such a manner that the potential for human contact during normal operation is minimized.

Canada

Industry Canada Class B emission compliance statement. This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité á la réglementation d'Industrie Canada. Cet appareil numérique de classe B est conforme á la norme NMB-003 du Canada.

Limited Warranty for Interwrite PRS High-Speed IR Receiver

Interwrite Learning warrants this product to be free from defects in material and workmanship under the following terms. Complete and return the enclosed warranty registration card to ensure that your products are covered by this warranty.

Coverage

Parts and labor are warranted for one (1) year from the date of the first consumer purchase for the Interwrite PRS High-Speed IR Receiver.

Technical Support

Web-based Technical Support is available free of charge at: www.InterwriteLearning.com, where current driver releases, as well as comprehensive technical support, troubleshooting, Technical Bulletins and FAQs can be found.

Telephone Technical Support is available free of charge to the original consumer for a period of 90 days from the date of purchase of the product. Please contact our Technical Support Department:

In United States: (480) 443-2214 (MST)
In Europe: +49 (0) 89 370012-0 (CET)

You can also fax your request to:

In United States: (480) 948-5508 (MST)
In Europe: +49 (0) 89 370012-12 (CET)

Our toll-free number in the U.S. is: 800-856-0732 (MST)

To view the terms and conditions of the Limited Warranty for Interwrite PRS High-Speed IR Receivers in its entirety, please visit our Web site at:

www.InterwriteLearning.com

HIGH-SPEED IR RECEIVER HUB SPECIFICATIONS

Dimensions:	3.3 x 3.5 x 1.7 inches (83.20 x 88.90 x 43.18 mm)
Weight:	4.7 ounces (133 grams)
Power:	9V DC Wall Mount, or ~ 5V (via USB cable))
Reception Cone Angle:	Approximately 120 degrees

Declaration of Conformity

The "CE" mark on this device indicates compliance under the EMC 89//336/EEC Directive.

Declaration of conformity according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: GTCO Corp. (dba Interwrite Learning)

Manufacturer's Address: 7125 Riverwood Drive
Columbia, MD 21046 U.S.A.

declares, that the product

Product Name: Interwrite PRS High-Speed IR Receiver Hub

Model Numbers: RX-03

Product Options: All

conforms to the following product specifications:

EMC: EMC Directive 89/336/EEC and amendment 92/31/EEC

Emissions Testing: EN 55022:2003 Class B
EN 61000-3-2 Harmonics Class A
EN 61000-3-3 Flicker

Immunity Testing: EN 55024:2003 including:
EN 61000-4-2;ESD
EN 61000-4-3;Radiated Immunity
EN 61000-4-4;EFT/B
EN 61000-4-5;Surges
EN 61000-4-6;Conducted Immunity
EN 61000-4-11;Voltage Dips

RoHS: "-R" labelled products conform to DIRECTIVE 2002/95/EC. These products are RoHS-compliant.

Supplementary Information

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC.

Location	Date	Engineering Mgr
Scottsdale, Arizona, U.S.A.	1-1-2006	Dana Doubrava

European Union Emission Directive

This product is in conformity with the protection requirements of EU Council Directive 89/366/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22/European Standard EN55022. The limits for Class A equipment were derived for typical industrial environments to provide reasonable protection against interference with licensed communication devices.

European Union WEEE Directive

The manufacture of this equipment required the extraction and use of natural resources. It may contain hazardous substances that could impact health and the environment.

- In order to avoid the dissemination of the hazardous substances into the environment and to diminish the pressure on our natural resources, we encourage you to return this product to the appropriate take-back system facility. These facilities reuse or recycle most of the materials in this equipment in a responsible way.
- The crossed-out wheeled bin symbol below invites you to use these take-back systems.
- If you need more information about the collection, reuse and recycling systems in your area, please contact your local or regional waste authority.
- Further information about the responsible end-of-life management of this and other Interwrite Learning products is available on our Web site at **www.InterwriteLearning.com**.

INTERWRITE LEARNING™

www.InterwriteLearning.com

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