Excellence in Compliance Testing

Certification Exhibit

FCC ID: Z9O-FAS1521
IC: 10060A-FAS1521

FCC Rule Part: 15.231
IC Radio Standards Specification: RSS-210

ACS Project: 14-2067

Manufacturer: UltraClenz, LLC
Models: FAS1521-01

User Manual

(Part 2 of 2)

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4. Power-On Self Test Sequence

When batteries are installed in the PSS Door Monitor, a power on self test sequence initiates as follows: single flash green LED, single flash red LED, single flash green LED, single flash red LED, and three audible alarm beeps.

5. Entry- Exit Functional Sequences

Door Entry (Compliant)

- Activate the hand sanitizer dispenser
- The PSS Door Monitor will flash one green LED
- Enter room

***Door Exit* (Compliant)**

- Exit the room
- PSS Door Monitor red LED will flash
- Activate the hand sanitizer
- The green LED will flash once

6. RS485 to Host Computer

The USB to RS485 Network Interface Kit (part number FAS1502-00) is used to connect the PSS Door Monitor to the Host computer. (See Figures 3 and 5 for the location of the RS485 connector)

Figure 5. RS485 Din Connector

7. Changing the PIR Sensor's Position

The PIR Sensor can be swapped from the right side to the left side depending on the door opening configuration.
(See Figures 6, 7and 8)

Figure 6. Right Side PIR

Figure 7. Left Side PIR

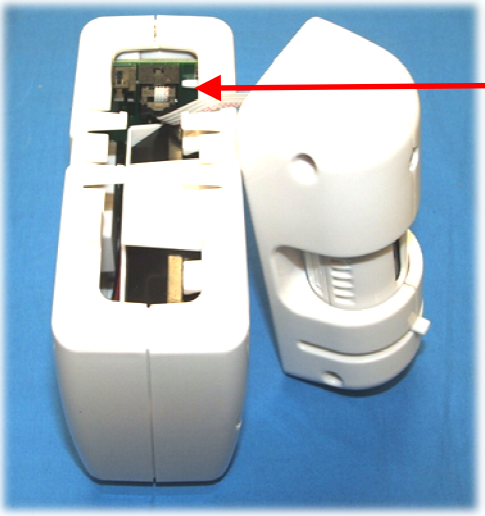


Figure 8. PIR Connector

8. PIR Sensor Alignment

The sensor alignment is adjusted by loosening the 1/8” hex screw above the PIR window and by rotating the turret with the adjustment tab at the bottom of the PIR sensor window. It must be positioned so that the PIR window is aimed across the room’s door frame or entry path. (See Figures 9 and 10)

Figure 9. Turret Locking Screw

Figure 10. PIR Sensor Alignment Tab

9. Door Mounting Location

The PSS Door Monitor can be mounted on the wall outside or inside and left or right side of the patient room's door opening. The mounting location of the PSS Door Monitor can be at approximately the same height as the hand dispenser mounting height and horizontal mounting is 2 to 3 inches from entry path. Mount the PSS Door Monitor with bypass button at the top and PIR sensor aiming across the door opening. The PSS Door Monitor must be mounted off the wall making sure the PRI sensor window is clear of door molding and all other obstructions (See Figure. 11).

Figure 11. Mounting Example

Appendix A - USB to RS485 Converter Installation

Introduction

The USB to RS485 Converter allows the connection of Windows PC based application software to an UltraClenz RS-485 enabled device. The USB to RS485 Converter connects directly to the host PC's USB port via an A-B USB cable. Power for this device is provided by the PC's USB port so no external power source is required. The USB to RS485 Converter connects to an RS-485 network via an RJ-11 connector or directly to an UltraClenz device's data port via a 6-pin MiniDIN cable. Both an RJ-11 and 6-pin MiniDIN connection are provided on the USB to RS485 Converter.

Host PC Requirements

- Windows XP, Windows 7 or Windows 8
- One Available USB High-Speed (2.0) or Full-Speed Port (3.0)
- 1MB of Available Hard Drive Space
- Minimum 128M of RAM

Installation

Follow the steps below to connect the USB to RS485 Converter to the host PC and load the USB driver. The following steps are shown for Windows XP but Windows 7 and 8 are similar. It is possible that Windows 7 or Windows 8 may already have the driver installed. If the Found New Hardware Wizard does not activate, then this is the case and the user may then skip the installation section and go on to configuration section.

1. Locate an available USB port on the host PC
2. Attach the USB cable to the PC's USB port
3. Attach the other end of the USB cable to the USB to RS485 Converter
4. Window's "**Found New Hardware**" Wizard will activate automatically
5. In the Wizard, select "**No, not this time**" then click **Next**
6. Insert the USB driver CD into the CD drive
7. Select "**Install software automatically (Recommended)**" then click **Next**
8. Click **Finish** to complete the driver installation

After clicking finish, the "Found New Hardware" Wizard will activate again to install the COM port emulation driver. The procedure is the same as that above for installing the USB driver.

The above steps need only be performed the first time the USB to RS485 Converter is attached to the host PC. Once the drivers are installed, the host PC will always recognize the USB device.

Configuration

The USB to RS485 Converter will emulate a serial (COM) port on the host PC. It will be necessary to determine which COM port the USB driver has selected. To do this, follow the steps below.

1. Open the Control Panel
2. Click on **Performance and Maintenance** (only if Control Panel is setup for Category View)
3. Click on **System**
4. Click on the **Hardware** tab
5. Click the **Device Manager** button
6. Select **View -> Devices by Type** from the menu
7. Expand **Ports** in the tree view

The device appears as an additional COM port with the label "USB Serial Port" and the assigned COM port in parentheses. Example: USB Serial Port (COM3)

Make a note of the assigned COM port and select it when running UltraClenz software.

If the assigned COM port is not desired, it can be changed to any other available port by following the steps below.

1. Double click on **USB Serial Port** in the Device Manager tree view
2. Click on **Port Settings** tab
3. Click the **Advanced** button
4. Select a different COM port from the **COM Port Number** drop down menu
5. Click the **OK** button

NOTE:

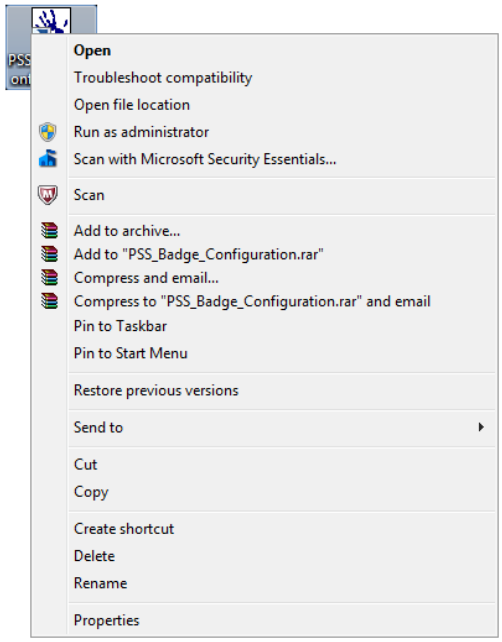
The driver will assign each USB port to a unique COM port. Please be aware that using different USB ports will require changing the selected COM port in the PC application software.

Appendix B - Windows Compatibility Mode

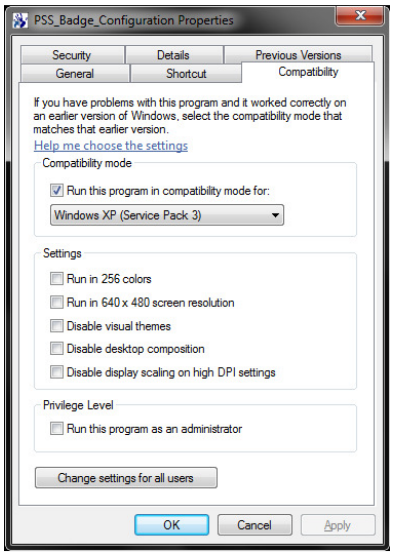
UltraClenz PC application software is currently developed under Windows XP. For it to perform correctly under newer versions of Windows, Windows Compatibility Mode must be enabled after the software has been installed. Once compatibility mode has been enabled, nothing more is required. The software will automatically run in compatibility mode each time it is launched.

Perform the following steps to put installed UltraClenz PC application software into Windows Compatibility mode.

Locate the folder/directory where the software executable (.exe) is installed and right click on the executable's icon. Choose "**Properties"** from the bottom of the context menu that appears.



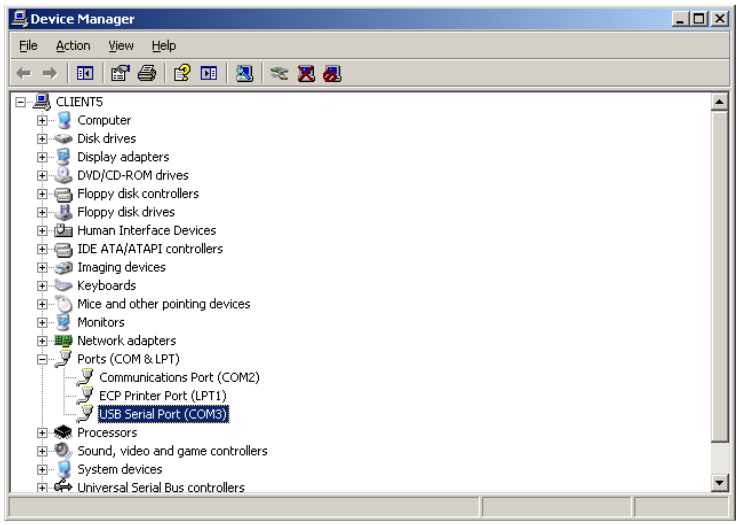
After choosing "Properties" from the context menu, a window will appear displaying the different properties of the application organized in tabs. Select the "**Compatibility"** tab, check the "Run this program in compatibility mode for:" checkbox, then select Windows XP SPS 3 from the drop down menu and click the OK button.



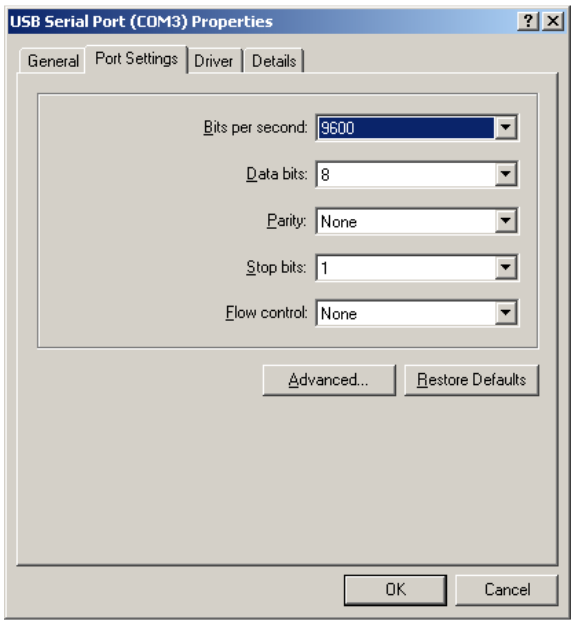
Appendix C - COM Port Performance

If communication performance issues are observed, it will be necessary to "tweak" the COM port's properties. The following steps will configure the COM port for reliable communications.

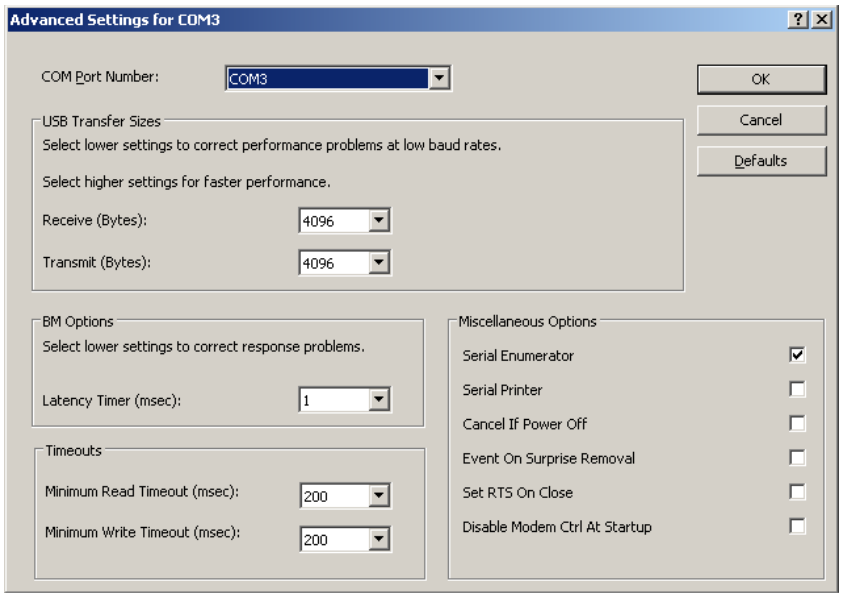
1. Connect the USB to RS485 Converter to an available USB port. Then, go to Device Manager, expand "Ports" and double click "USB Serial Port".



2. In USB Serial Port Properties, select the "Port Settings" tab and click the "Advanced" button.



3. In Advanced Settings, change “Latency Timer” to 1. Change both “Minimum Read Timeout” and “Minimum Write Timeout” to 200. Then click the “OK” button.



4. For COM port changes to take effect, Windows 7 and 8 may require a reboot (Windows XP does not).

Appendix D - Certification and Safety Approvals

FCC Statement

NOTE: 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. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

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

WARNING: Changes or modifications not expressly approved by UltraClenz, LLC could void the user's authority to operate the equipment.

RF Exposure:

"This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."

Industry Canada

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Appendix E - Warranty

This device is warranted against defective materials and workmanship for two years from the date of purchase.

Equipment covered by this warranty will be repaired or replaced in the United States and Canada, WITHOUT CHARGE, except for shipping and handling, by our Factory Service Center.

When returning equipment for warranty service, you must first call your distributor's **Warranty Service Department** for your Return Merchandise Authorization Number (RMA). The RMA must be on your return label and the shipping charges must be pre-paid and a copy of your receipt must be enclosed. Equipment should be returned to UltraClenz Customer Service, 1201 Jupiter Park Drive, Jupiter, FL 33458.

This warranty covers all defects incurred from normal use of the equipment and does not apply in the following cases:

a. Loss or damage to the equipment due to abuse, mishandling, accident or failure to follow installation or use instructions.

b. If the equipment is defective as a result of leaking batteries.

c. If the equipment has been serviced or modified by someone other than our authorized agents.

THE AFOREMENTIONED IS IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL THE VENDOR BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR LIABILITY, TRANSPORTATION, INSTALLATION OR SUBSTITUTION COSTS, DELAYS, OR FOR ANY OTHER DAMAGES, COSTS, OR EXPENSES INCURRED, IRRESPECTIVE OF HOW THEY OCCUR. THIS WARRANTY SHALL NOT EXTEND TO ANY OTHER PERSON OTHER THAN THE ORIGINAL PUCHASER OF THIS EQUIPMENT OR THE PERSON FOR WHOM IT WAS PURCHASED AS A GIFT.

This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state. This warranty is given with respect to equipment purchased in the United States.