

APP916

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Application Note – RS232 Troubleshooting Guide

This application note is designed to help if you have trouble with RS232 communications on a Gardasoft Vision LED Lighting controller.

Note that most controllers have a demonstration program to demonstrate the use of RS232 commands.

Cable Connections

All Gardasoft controllers have 9-way D-type female connectors for RS232. The pinout is as follows.

Pin 2	Controller TX
Pin 3	Controller RX
Pin 5	GND

All other pins are unconnected.

It is possible to use a “straight-through” male to female cable to connect the controller to a PC RS232 port.

There is no RS232 communication

Check that the baudrate is correct. The baud rate for Gardasoft controllers is:

PP610	9600 baud
PP860	115200 baud
PP111	9600 baud
PP810	9600 baud
PP910	9600 baud

The format for all controllers is 8 data bits, no parity and 1 stop bit.

Try using Window's HyperTerminal program to communicate with the controller. Make sure you use full duplex, not half duplex mode (don't select “Echo typed characters locally” under ASCII setup). If you send ENTER, then you should get a “>” prompt reply.

If this doesn't happen then see if any text appears on the HyperTerminal screen when the controller is turned on. The controllers output a sign-on message. If this is received then it suggests the problem is with PC transmit rather than receive.

On the PP610 and PP810, try sending an illegal command. If the display shows an error message then the PC transmit is probably working and PC receive is not.

Try shorting out pins 2 and 3 on the RS232 connection and type letters on HyperTerminal and see if they get echoed back. If they don't then there is a cable or PC problem. You can short out pins 2 and 3 by unplugging the cable from the controller and connecting the pins together using a screwdriver.

Communications are unreliable

After a program sends a command to the controller, it should wait for the “>” prompt to be returned. Once this has been returned, the controller is ready to send another command. If your software does not wait for the prompt, then it is likely that communications will be unreliable.



If you see random characters getting corrupted when using HyperTerminal, then there may be a cable fault or there may be noise pickup from other cables.

How do I find out the version number of the firmware?

The firmware version number is output on the serial port on power up and when the “VR” RS232 command is sent.

I have multiple controllers and not enough serial ports

As standard the PP860 has a multidrop feature which allows several PP860s to be connected to one RS232 port. This allows a program to send commands to all controllers or just to a single one.

There is a special version of the PP610/PP612 software for multidrop operation. Contact Gardasoft for details.

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