

BlueConsole

Application Note: Bluetooth SPP Repeater Mode

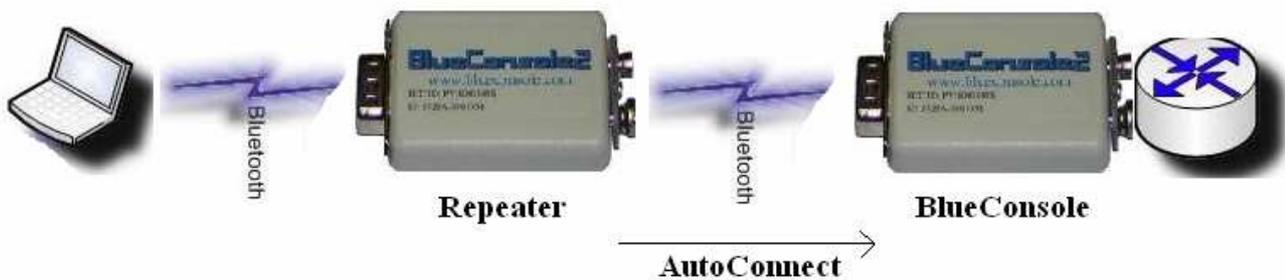
What is Bluetooth SPP Repeater Mode?

BlueConsole can act as a repeater to double the distance of a Bluetooth Serial Port Profile connection. Repeater Mode is implemented using special firmware on BlueConsole, along with a 9V battery to power the intermediate Repeater unit. The DB9 or RJ45 RS232 serial port is not used on a Repeater. There are two common use cases for Bluetooth repeater mode:

Case 1: Extend the Bluetooth distance between two PC/Mac/PDA devices establishing a Bluetooth SPP serial connection.



Case 2: Extend the Bluetooth distance from a PC/Mac/PDA device to a native RS232 device equipped with a BlueConsole adapter or integrated Bluetooth.



Setting up a Bluetooth SPP Repeater

Use the following steps to convert your BlueConsole adapter to Repeater Mode:

- Download the BlueConsole Repeater firmware. Follow the Instructions and install the Repeater firmware on your BlueConsole adapter.
- Attach a 9V Battery to the Repeater unit
- Run the BlueConsole Config Utility. Read the current BlueConsole Settings
- Enable the "Repeater/Multipoint Mode" option on the Repeater
- Change the DeviceName of the unit to BlueConsole-Repeater (or an equivalent useful name).
- Write these new Settings to your BlueConsole Repeater.

Use Case #1 Setup: Bluetooth Repeater between two Computers with Bluetooth

- Pair both of your Computers with your BlueConsole-Repeater and add a Virtual Serial Port. Follow the normal instructions in the User's Guide specific to your computer system's Bluetooth.
- Using your Terminal or other Application software on both computers, connect to the assigned Bluetooth Virtual COM port. Do this on both of your computers with Bluetooth.
- Both your computers should now be able to exchange serial data through the Bluetooth Repeater.
- **(Alternate Setup):** You can alternatively setup AutoConnect on the BlueConsole Repeater, so it automatically connects to a Bluetooth Incoming Serial Port on one of your computers. In that case, one computer would make an Outgoing Serial connection to the Bluetooth-Repeater, and the Bluetooth-Repeater would make an outbound connection to an Incoming Serial port of the other computer.

Use Case #2 Setup: Bluetooth Repeater between a Computer and an RS232 port equipped with another BlueConsole Adapter

- For testing, attach 9V batteries to both your Repeater and other BlueConsole adapter.
- Pair your Computer with your BlueConsole-Repeater and add a Virtual Serial Port. Follow the normal instructions in the User's Guide specific to your computer system's Bluetooth.
- Run the BlueConsole Config Utility on your Repeater. Read the current BlueConsole Settings
- Click "Discover" to allow the Repeater to Discover the other BlueConsole adapter. Alternatively, you can Enable AutoConnect and manually enter the MAC address of your other BlueConsole adapter (or other Bluetooth SPP device).
- Click Write Settings to save the changes.
- The Repeater will automatically Connect to the other BlueConsole adapter to form a Cable Replacement.
- Using your Terminal or other Applications software, connect to the assigned Bluetooth Virtual COM port from when you paired with the BlueConsole-Repeater.
- You should now be exchanging serial data from your computer, through the Repeater, to the far-end BlueConsole adapter RS232 port.

Converting back to Normal BlueConsole Firmware

If you no longer want to use BlueConsole as a repeater, it can be converted back with the normal firmware. Download the latest firmware release from the website and follow the instructions. Reset your BlueConsole back to Factory Default after the upgrade for best results.