

CB008776/73 Virtual COM USB-RS232 over Bluetooth

Features

- USB-RS232 conversion
- Virtual COM port device driver
- Wireless connection
- Bluetooth Class 1 Radio
- Integrated antenna
- Data encryption
- Automatic Bluetooth connection
- LED indicators
- Configuration via USB
- Touch button power switch
- Power from USB port or battery
- Battery level meter
- Battery overdischarge protection (manually activate)
- Up to 45 hours continuous use (9600bps) on 2 AA batteries.



Specifications

Bluetooth	Bluetooth v2.1 + EDR Class 1 Radio
USB	USB specification 2.0 compliant USB full speed 12Mbps transmission USB type A plug connector
RS232	Connector: DB9 male/female Baud rate: 1200bps to 115200bps Parity: Even, Odd, None Data length: 8-bit Stop bits: 1-bit, 2-bit
Power	USB adapter bus-powered, idle 19mA, normal 45mA, maximum 100mA. RS232 adapter battery-powered, 2 AA batteries.
Part Number	CB008776 DB9 male CB008773 DB9 female
Software	32-bit and 64-bit virtual COM port device driver for Microsoft Windows 8, Windows 7, Windows Vista, Windows XP.

Device Driver Installation:

The software package is supplied in a compressed folder file named *USB_COM_1P_Driver* or a CD. Here are the installation steps.

1. If you have file *USB_COM_1P_Driver*, rename *USB_COM_1P_Driver* to *USB_COM_1P_Driver.zip*, extract all files to a file folder on your local disk or USB drive, double click *setup.exe* to start software installation.
2. If you have the software CD, insert the software CD into your computer's disc drive, the software installation will start automatically.
3. Follow the on-screen instructions until the setup wizard finishes.
4. Plug USB-Bluetooth adapter to the computer's USB port.
5. Follow the on-screen instructions if any to complete the software installation.

System Requirements

Configuring CB008776/73 adapters on a PC requires:

- Microsoft Windows 8, Windows 7, Windows Vista, or Windows XP.
- eeTerminal (download from www.devicefunctions.com).

DEVICE FUNCTIONS

Contents

CB008776	One C008723 USB-Bluetooth adapter, one B102476 Bluetooth-RS232 adapters
CB008773	One C008723 USB-Bluetooth adapter, one B102473 Bluetooth-RS232 adapters


LED Indicator - Bluetooth connection

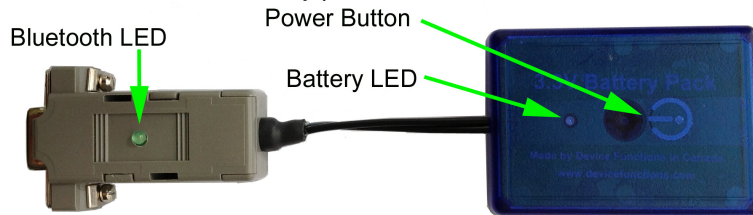
Status	LED Flash Rate
Connected	Solid ON
Waiting for Connection	Once per second
Configuring	10 times per second

LED Indicator - Battery meter and battery switch


Status	LED Flash Rate
Battery switch (touch button)	Solid on while touching, otherwise off
Battery good	LED off
Battery low (Alkaline)	Once every 3 or 2 seconds
Battery extremely low (Alkaline)	Once per second
Battery low (Rechargeable)	Once per second
Battery cutoff (Rechargeable)	LED off

Battery Power On and Power Off

Touch on power button  until battery LED lights up. Left your finger. Touch twice more consecutively. The battery LED must be on with each touch. This turns on battery power. The same procedure is used to turn off battery power.



Battery Level Meter


The battery level meter tells the current battery power in percentage. Power on the adapter. Place your finger on  power button. The battery LED will start flashing in a few seconds. Count the number of flashing until the battery LED stops flashing. Lift your finger. The battery level is read as,

Number of Flashing	Battery Power Level
10	90% - 100%
9	80% - 90%
8	70% - 80%
7	60% - 70%
6	50% - 60%
5	40% - 50%
4	30% - 40%
3	20% - 30%
2	10% - 20%
1	Less than 10%

Change Batteries





B102476/3 requires two AA batteries. Both Alkaline and rechargeable batteries can be used. Unscrew the screw on the battery pack. Remove the cover gently. Remove the old batteries and place the new batteries in. Align the + and - signs on the batteries with the + and - signs on the battery holder. Put on the cover and tighten the screw.




Rechargeable Battery Overdischarge Protection

This feature can be activated when changing batteries to rechargeable batteries. It prevents rechargeable batteries degradation caused by overdischarge. To activate overdischarge protection, touch on  power button while placing in the second rechargeable battery. The LED must be solid on when touching. Lift your finger. Touch twice more consecutively. The LED will flash three times. This indicates that the over discharge protection is activated.

Overdischarge protection is off by default. You need to activate this feature every time when you change rechargeable batteries.

Touch Button Adjustment

Unscrew the screw and gently remove the cover. Remove one battery. Touch on  power button while placing back the battery. The LED is solid on. Keep touching on  power button until LED off. Lift your finger. Wait until the LED is solid on again. Place your finger over  power button. Keep your finger on  power button until LED starts flashing. Lift your finger. When the LED stops flashing, the touch button recalibration is done.

The following procedure can be used to restore manufacture's touch button setting. Unscrew the screw and gently remove the cover. Remove one battery. Touch on  power button while placing back the battery. The LED is solid on. Keep your finger on  power button until LED off. Continue keeping your finger on  power button until LED starts flashing. Lift your finger. When the LED stops flashing, the touch button is restored.

Power Up

First, power on Bluetooth-RS232 adapter, then power on USB-Bluetooth adapter. The Bluetooth LEDs will be solid on in a while. If Bluetooth LEDs keep flashing, the two devices need to be paired.

Configuration

Start eeTerminal, power on Bluetooth-RS232 adapter, plug USB-Bluetooth adapter in a PC's USB port. Wait until LEDs are solid on. **You have 60 seconds to start configuration after power on.** If the two devices are not paired, the LEDs are flashing. You need to pair the devices first.

Step 1 Start configuration

Click *File* from eeTerminal's menu bar and click *Open Device*. A *Select Device* window, Fig 1, will popup with a list of devices.

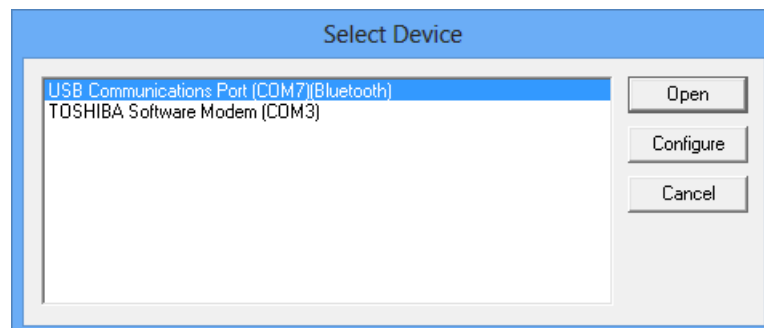


Fig 1

DEVICE FUNCTIONS

Select the COM port assigned to this USB-Bluetooth adapter. The COM port has "Bluetooth" in its name. Click *Configure* button. The *Bluetooth Settings* window, Fig 2, will popup in a few seconds.

Step 2 Configure Bluetooth adapter

- Encryption support is always enabled. The paired device must also support link encryption in order to set an encrypted connection.
- Authentication pin code is 1234. Authentication is turned off by default.
- RS232 settings. Set baud rate, parity, and stop bits.
- Device Pairing. In order to make a Bluetooth connection, two Bluetooth devices must be paired. Click *Add New Device* button. Visible Bluetooth devices in range will be listed in a few seconds. You may need to click *Add New Device* multiple times to find Bluetooth devices. Select a Bluetooth device and click *Pair* button.
- Device Unpairing. Click *Unpair* button if enabled to erase pairing information.

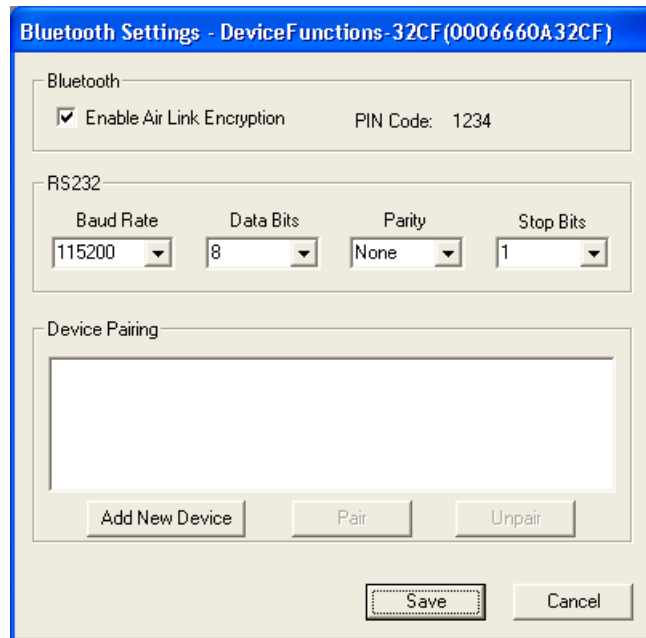


Fig 2

Step 3 Save Bluetooth adapter's settings

Click *Save* button to save new settings or click *Cancel* button to cancel any modification. The new settings will take effect immediately once saved.

Step 4 Turn off remote Bluetooth-RS232 adapter. Wait until USB-Bluetooth adapter's LED starts blinking. Repeat Step1 to Step 3 to configure USB-Bluetooth adapter.

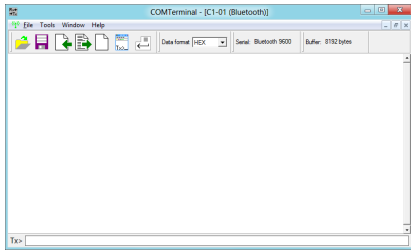
DB9 Connector Pin Descriptions

Pin #	DB9 Male Connector	DB9 Female Connector
1	1 - 4 - 6	1 - 4 - 6
2	Rx	Tx
3	Tx	Rx
4	1 - 4 - 6	1 - 4 - 6
5	GND	GND
6	1 - 4 - 6	1 - 4 - 6
7	7 - 8	7 - 8
8	7 - 8	7 - 8
9	NC	NC

DEVICE FUNCTIONS

Accessories

eeTerminal Configure, read, and write Bluetooth adapters. Upload/download files.



Environmental Conditions

Operating temperature range	0°C TO +45°C
Storage temperature range	-20°C TO +35°C
Relative humidity	0% to 90%, non-condensing

©2014 Device Functions. All right reserved.