

ControlPro® Bluetooth Wireless Interface Instructions

The Control Pro Bluetooth Wireless Interface Kit allows body builders to conveniently connect a desktop PC or laptop computer to a Control Pro unit mounted inside a truck without the hassle of long cables and adapters.

This kit includes the following:

- 2 Serial to Bluetooth adapter dongles with antennas
- 1 USB power adapter
- 1 9V battery power adapter
- This instruction manual



Contents

1. Getting started
2. Operation notes
3. Troubleshooting
 - a. Baud rate selection
 - b. Pairing
 - c. General

1. Getting Started

***This kit is designed to replace a setup already working with a serial cable placed between the Control Pro and a PC. If you cannot get a working connection with a cable, the wireless adapter will not work as well. Please refer to the Control Pro software manual for assistance in selecting the proper COM port and settings for your system.

PC side

1. Remove the serial cable connecting the Control Pro and the PC.
2. Plug one of the Bluetooth adapters into the PC serial port.
3. Plug the USB power adapter into a free USB port and the other end into the side of the Bluetooth adapter.
4. Turn the power switch on the adapter to the “ON” position. The green power light should illuminate on the adapter.

Truck Side

5. Plug the Bluetooth adapter into the serial port on the Control Pro.
6. Verify the 9V battery clip is attached to a fresh 9V battery and the power plug is inserted into the side of the Bluetooth adapter.
7. Turn the power switch on the adapter to the “ON” position. The green power light should illuminate on the adapter.

Both Sides

8. Once both adapters are turned on, the “Connect” indicators should light a steady green on both adapters.
9. You are now ready to communicate over Bluetooth!



2. Operation Notes

Your adapters are “paired” to work together before they are shipped to you. The process of pairing tells each adapter to transmit only to the other adapter and to ignore all other Bluetooth devices in the vicinity. From time to time, your adapters may become unpaired for some unknown reason. If this occurs, the “Connect” indicator on the adapter will either be flashing or unlit. You can re-pair the units by following the pairing procedure outlined in the troubleshooting section.

It is important to turn the power switches off on the adapters when they are not in use. A standard 9V battery should allow for up to ~10 hours use, however, if the switch is left on the 9V battery will be drained rather quickly. Also, if the 9V battery is nearly drained, reliable communications may not be achieved. Please ensure that a fresh battery is always installed.

There is a baud rate selection on each of the adapters. This is simply the speed at which the information will be relayed from one to the other. The settings on each unit must match for proper operation. Furthermore, the setting must match the Control Pro unit to which it is attached. Control Pro II's and 3's must have the setting at 19.2K baud. Control Pro 4's must have the setting at 115.2K baud. The HW flow control switch must be in the “off” position.

These Bluetooth adapters are “Class 1” Bluetooth transmitters. This means that in unobstructed areas the modules can be up to 100m apart and still work correctly. In real-world environments this distance will usually be much shorter.

One of the adapters may be paired to a PC with built in Bluetooth if it is available. This process will eliminate the need for the second adapter. However, if the PC utilizes a “Class 2” transmitter, the working distance between the adapter and the PC may be much shorter. Also, the COM port to use with the Control Pro software must be found using Bluetooth manager on the PC.

3. Troubleshooting

A. Baud rate selection

With the combination of 4 slot dipswitches, baud rate and hardware flow control can be set.

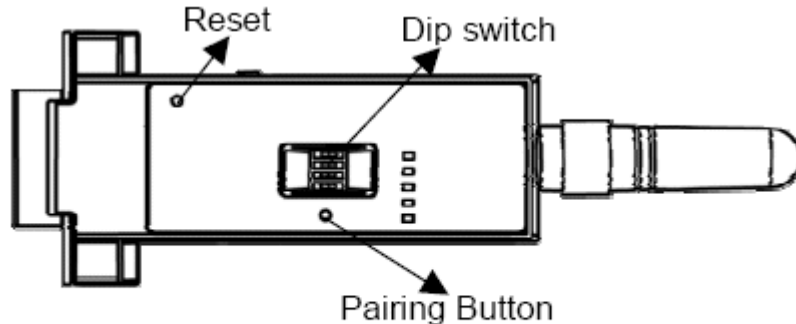


Figure 3-1 The Parani-SD Dipswitch

The upper 3 dipswitches are used for setting the baud rate, and bottom dipswitch is used for setting hardware flow control option.

Baud rate Settings by Dipswitches

	CP2 or CP3			CP4				
Baud rate	2400	4800	9600	19.2K	38.4K	57.6K	115.2K	S/W Config

Hardware Flow Control Settings by Dipswitches

DO NOT USE Hardware Flow Control. Make sure it is in the OFF position!

B. Pairing

Parani-SD provides Pairing Button for instant configuration without a PC to make an automatic connection between two Parani-SDs. In this example we will refer to the two Parani-SDs as SD1 and SD2, respectively.

Step 1. Turn off all the nearby Parani-SD's

Step 2. Turn on SD1 and SD2 and hardware reset both of them by pressing Reset Button.

Step 3. Press the Pairing Button of SD1 for 2 seconds until Standby LED turns off and Connect LED blinks 3 times every 2 seconds. Keep the power ON.

Step 4. Press the Pairing Button of SD2 for 2 seconds until Standby LED turns off and Connect LED blinks 3 times every 2 seconds. Now press again the Pairing Button for 2 seconds until Connect LED blinks every 0.5 second.

Step 5. Wait for SD1 & SD2 to connect to each other until the Connect LED's of SD1 and SD2 are fully solid green. It takes about 10 seconds to make a connection. If there are many Bluetooth devices nearby, it may take longer.

Step 6. Turn SD1 off and on. Connect LED blinks twice in green every 3 seconds.

Step 7. Turn SD2 off and on. Connect LED blinks once in green every 1 second.

Step 8. Now SD1 and SD2 are configured to make automatic connection to each other, whenever they are powered on.

C. Other

- Replace the battery on a regular basis for proper operation
- Verify both adapters power switches are in the ON position
- Move units closer together if they are far apart
- Verify correct COM port is selected in the Control Pro software
- Verify correct version of the Control Pro software is being used

All Traffic Solutions
Intuitive Control Systems
1-866-366-6602
PO Box 10085
State College, PA 16805