PI-BT

BLUETOOTH PROGRAMMING INTERFACE

1. DESCRIPTION

Bluetooth programming interface PI-BT is used for wireless communication between DC servo drive DCS-3010 and PC during the setting process of drive parameters. This interface has the IDC-10 female connector for connection with DC servo drive.

PI-BT is based on the RN-42 Bluetooth class 2 modules with built-in antenna. Bluetooth programming interface PI-BT significantly simplifies setting the parameters of DC servo drive DCS-3010 in difficult field conditions.

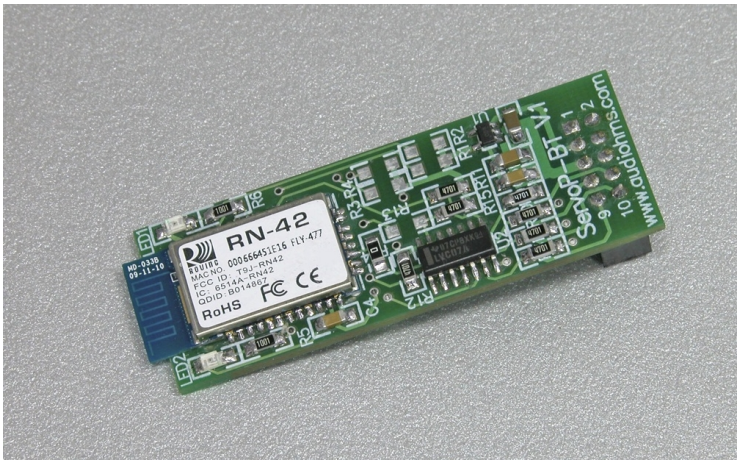

Figure 1.1

2. INSTALLATION OF BLUETOOTH PROGRAMMING INTERFACE

NOTE: Following is a description of procedure for installing the COM port that is related to the system support for the bluetooth module, called bluetooth stack. Some of USB dongle devices have their own drivers and software support, and the process of installing them is different, i.e. it is necessary to look at the documentation for that type of hardware and associated software support.

Plug IDC-10 female connector that is on the bottom of bluetooth programming interface PI-BT into **ServoTune Port** (Con.2) of DC servo drive DCS-3010, as it is shown in Figure 2.1.

Bring the power supply voltage of logic part of DC servo drive DCS-3010 (look the instructions of DC servo drive DCS-3010).

When the power supply voltage is brought on the logic part of DC servo drive DCS-3010, blinking of LED indicator named **LED2** on programming interface PI-BT will occur. It is the sign that the programming interface PI-BT is ready to establish communication with another bluetooth device.

It is necessary to activate bluetooth receiver on PC and to search for available bluetooth devices module around by selecting the **Add a Device** as in Figure 2.2.

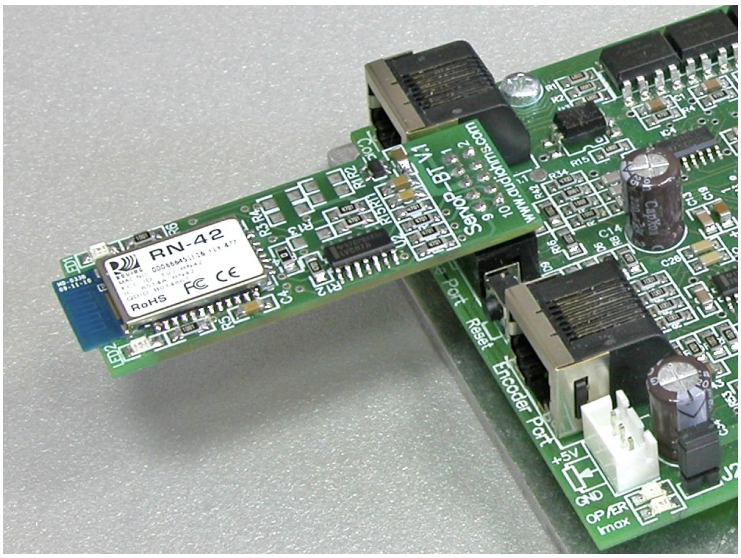

Figure 2.1

PC will show available bluetooth devices (Figure 2.3) and in this case it will be programming interface named **RN-42-555D.** The last four characters in the name of programming interface are the parts of the MAC number of bluetooth module, and will vary from module to module.

It is necessary to select the desired module and press the **Next** button (Figure 2.3), after that opens dialog for pairing bluetooth modules (Figure 2.4). In this dialog it should be selected the option for entering the pairing code (**Enter the device's pairing code**) and in following dialog in the appropriate field type the pairing code **1234** (Figure 2.5).

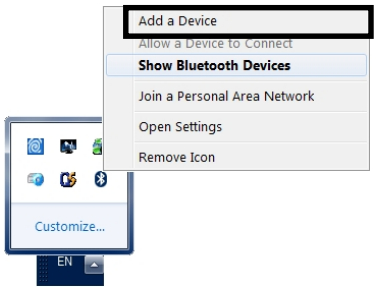

Figure 2.2

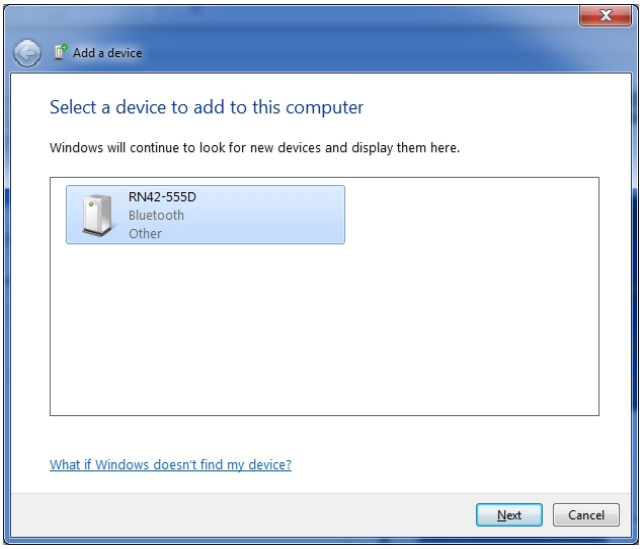

Figure 2.3

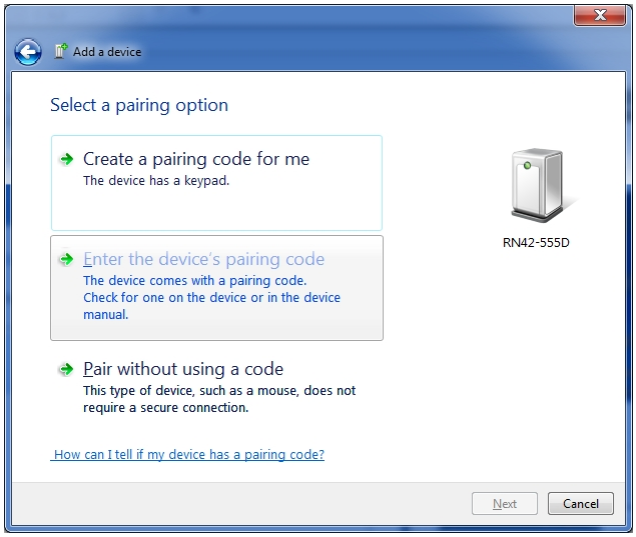

Figure 2.4

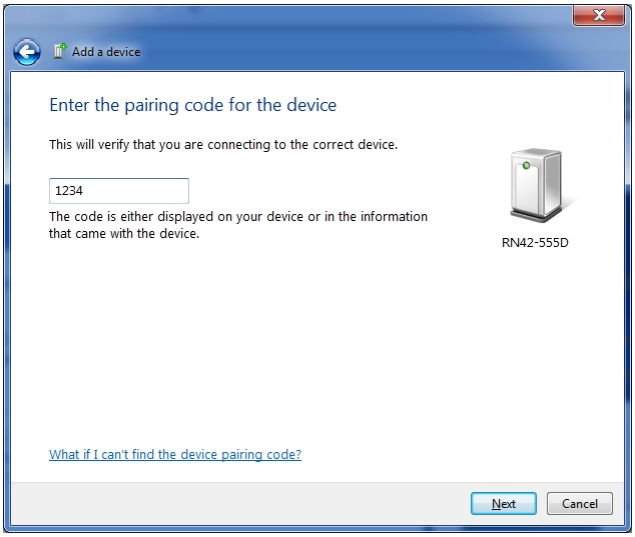

Figure 2.5

Now PC has enough data to connect with chosen bluetooth device and to run the installation of the driver for it. After successful completion of the driver installation will appear dialog box 2.6 and note 2.7.

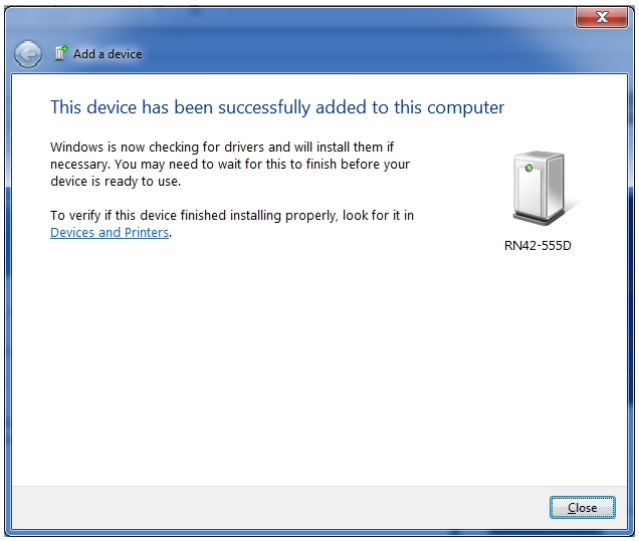

Figure 2.6

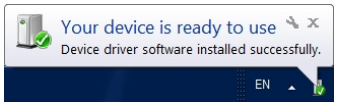

Figure 2.7

Checking the COM port number of newly installed bluetooth programming interface PI-BT can be done in **Control Panel – System – Hardware – Device Manager**. In this case Standard Serial Com port over Bluetooth link is on the COM8, as it is shown by rectangle in Figure 2.8

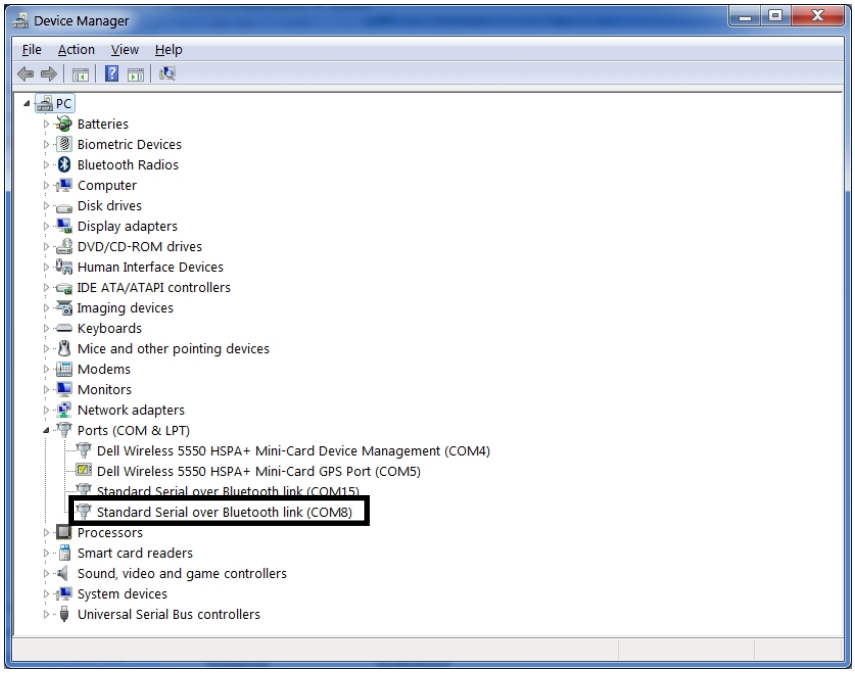

Figure 2.8

3. CONNECTION OF DC SERVO DRIVE TO PC

Connect bluetooth programming interface PI-BT into **ServoTune Port** (Con.2) as it is shown in Figure 2.1. Bring the power supply voltage of logic part of DC servo drive DCS-3010 (look the instructions of DC servo drive DCS-3010).

Start **ServoTune3** configuration software. Choosing of the desired COM port is done by selecting **File – Communication setup** or by pressing the icon  , that opens dialog in Figure 3.1. It is necessary to press the **Rescan ports** and to choose the desired port in drop-down menu (Figure 3.1). In this case it is COM8 (Figure 3.2), choose the option **This is Bluetooth port** and press the **OK** button.

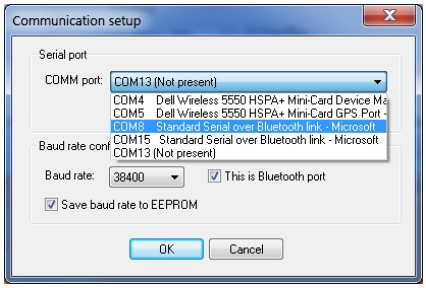

Figure 3.1

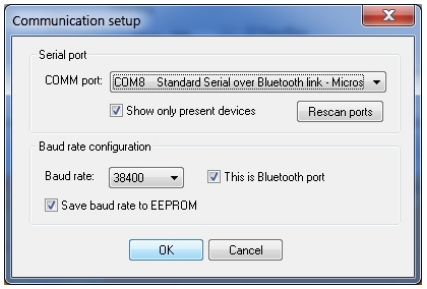

Figure 3.2

The configuration software **ServoTune3** will start to adjust selected **Baud rate** and to perform this process properly, at some point it is necessary to turn off the power bluetooth module and then turn it back on. Note of this procedure will be shown in the dialogue as in Figure 3.3.

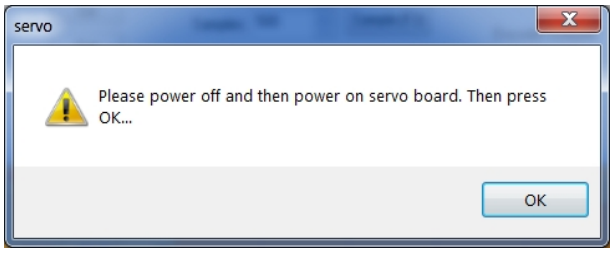

Figure 3.3

If everything is ok, connection between DC servo drive DCS-3010 and PC will be established. Caption on status bar of configuration software **ServoTune3** will change from **offline** (Figure 3.4), to **Connected: COM8, 38400bps** (Figure 3.5). After establishing connection both LED indicators (LED1 and LED2) on programming interface will illuminate.

NOTE: Detailed instructions of configuration software ServoTune3 is in instructions of DC servo drive DCS-3010, which can be downloaded from website www.audiohms.com on Download page.

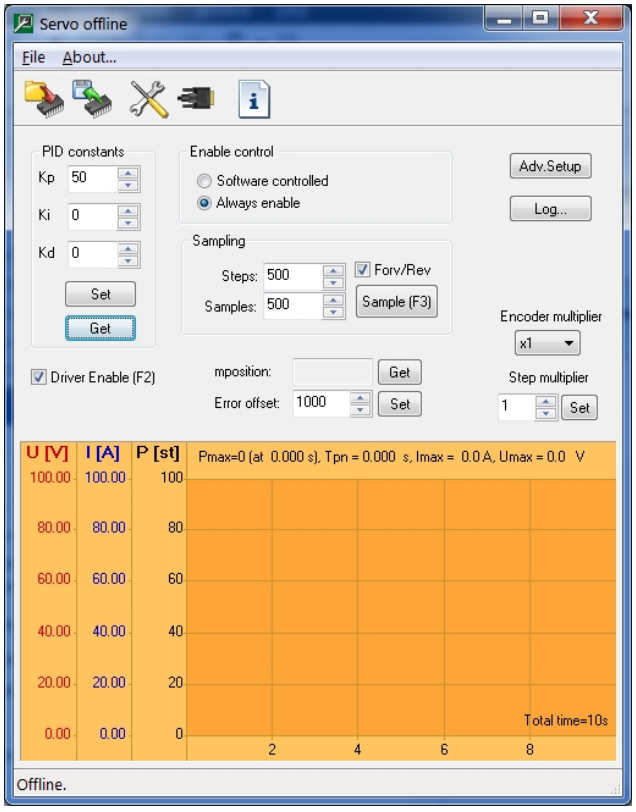

Figure 3.4

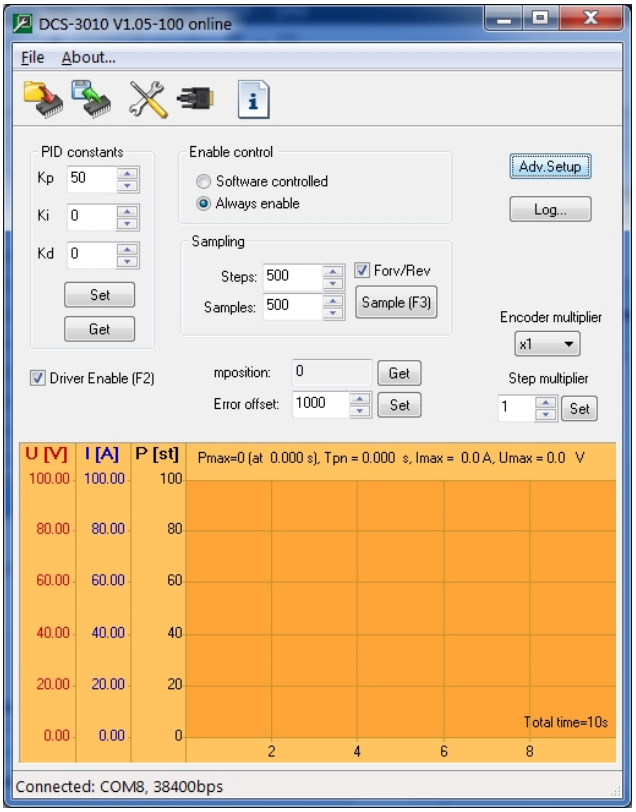

Figure 3.5

Document revision:

- Ver. 1, February 2014., English version