

KMK 139

DEVICE PAIRING, FIRMWARE UPDATE AND COMMAND MODE TEST

SMART BLUETOOTH OPTICAL PROBE

INFO@PROBEFORMETERS.COM

PROBEFORMETERS.COM



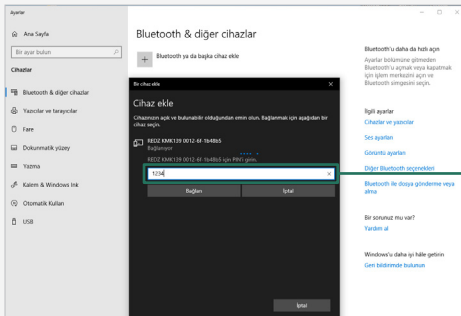
SMART
BLUETOOTH
OPTICAL
PROBE

DIFFERENT
WORKING
MODES



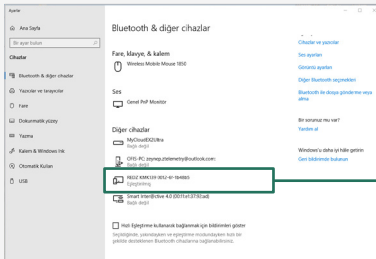
1. DEVICE PAIRING

Enable Bluetooth feature of your PC. Then push the power button of KMK139 to power up your device. From the Bluetooth devices option in your computer, click «Add a Device» and proceed according to the instructions on-screen.



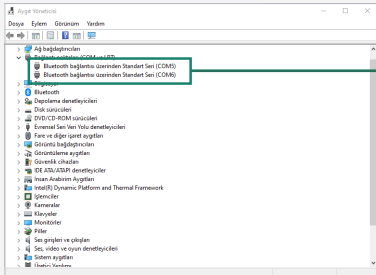
Enter the pin number «1234» to complete pairing the probe with your PC.

Figure 1



Once the process finished, user can see the Bluetooth device paired in Bluetooth Device List of their computer.

Figure 2



PC will install 2 COM ports. One is outgoing and the other is incoming port.

Figure 3

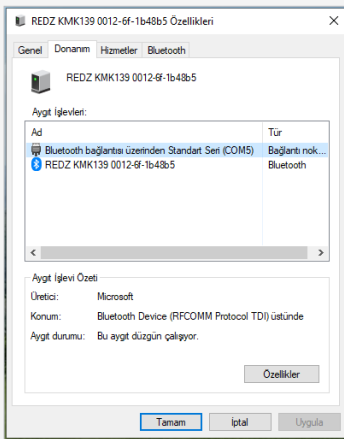


Figure 4

This is the default behavior of all similar Bluetooth devices that uses Serial Port Profile (SPP). In order to communicate with probe, user must use outgoing port. User can see this port in device settings or simply try to see if Bluetooth Probe connected LED is ON or not when trying to open connection.

2. FIRMWARE UPDATE

User can update firmware and use probe with different features. There is no limitation to update from one to another firmware. Users can update probe firmware anytime they need. Special software called abcZ is used to update firmware. Please install and launch the software.



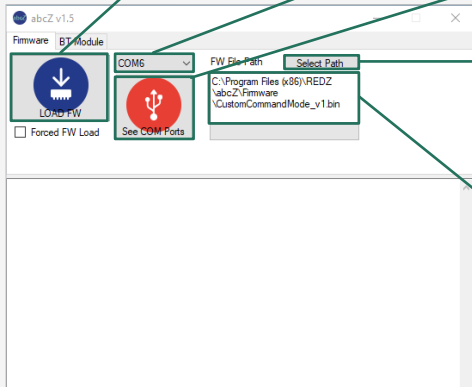
When you connect the probe with abcZ software and upgrade process starts the Bluetooth led will be on.

Figure 5

Turn the power off of your optical probe before clicking the LOAD FW button to load the selected firmware for your KMK139 optical probe and then repower it. Then press LOAD FW button in 10 seconds time window.

Select the outgoing COM of the probe you paired.

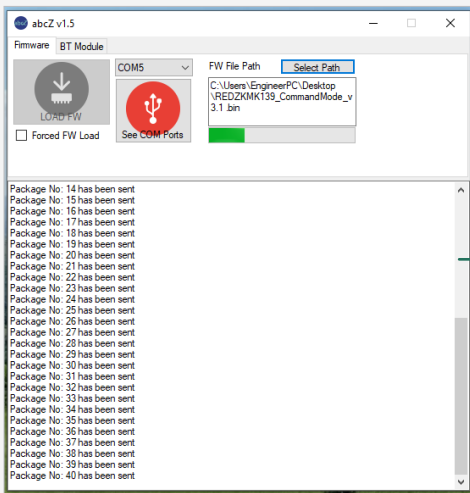
Press the “See COM Ports” shortcut button to see available COM ports on your PC.



Select the firmware that you want to install to the probe.

The firmware file path that you selected will be seen here.

Figure 6



The firmware upgrade process will be shown on the window of the software.

Figure 7

The operating mode is not important in this procedure. (This mode can be 1, 2, 3, etc.). The start and end of the update process can be monitored from the software window. After this process the probe will reboot.

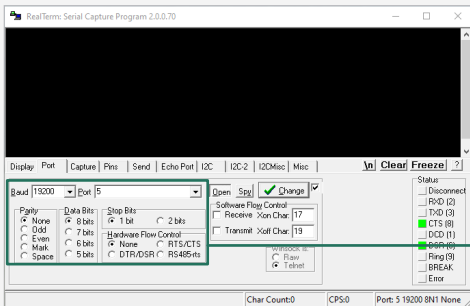
3. COMMAND MODE TEST

User can test Command mode of the probe with a terminal program. In this example a free software called «Real Term» has been used. Once the firmware is installed user can Turn OFF and ON the power of Bluetooth probe. Then terminal program can be launched.



Figure 8

Mode LED will turn off after 10 seconds for less power consumption. It will be ON as long as there is a correct connection. Then the terminal program can be launched.



Select the serial settings and COM port. The correct outgoing COM port of the probe should be selected and the serial settings should be 19200 baud rate with 8N1 data type.

Figure 9

Then you can communicate with the probe using different commands via terminal program. For example to read battery voltage of the probe user can send following byte Array to probe:

0xFE 0xFE 0x42 0x4C 0x55 0x45 0x30 0x38 0x4E 0x31 **0xA1** 0xFF

Probe will answer with battery voltage in mV.

Command byte. Other bytes are fixed and do not change. To query the battery voltage, the command byte should be 0xA1.

