BB0703/BB0703+ (PICkit 2) User Manual
(Rev. E Sep-02-2010)

Thanks for choosing Au Group Electronics BB0703 (PICkit 2) products, there are 3 major editions (BB0703, BB0703+128K, BB0703+256K) for different customer needs.

Au Group Electronics Item #	Full Microchip "red button" version PICkit 2 schematic/circuit	RJ12 Reverse Cable	RJ12 Connector	Dedicated power supply circuit for Programmer-to-Go (PTG)	EEPROM size for PTG	USB buck/boost regulator
BB0703	included	included	included	included	128K Byte	No.
BB0703+128K	included	included	included	included	128K Byte	included
BB0703+256K	included	included	included	included	256K Byte	included

Major Features:
- Dimension: 3" L x 1.72"W x 0.81"H (77x43.5x 20.5 mm)
- Color: PC white or Black
- 3 LEDs: **BUSY**, **TARGET**, **POWER**
- 1 Push Button: **PROGRAM**
- USB power supply: **5V 100 mA**
- 3 connector:
    - USB Connector: **Type B** or **Mini-B**
    - ICSP interface: **RJ12 6Pin 6P6C**
    - Power supply for PTG: **9V 100 mA**, **2.1mm positive center**
- **USB buck/boost circuit** included on "+" editions, no worry on USB voltage variation anymore
- Program-to-Go (PTG) feature: standard **128K** byte EEPROM size, and **256K** byte version available
- Three products available for different features: **BB0703**, **BB0703+128K**, **BB0703+256K**
- RJ12 reverse cable is included, compatible with any board developed for ICD2, ICD3, RealICE

Figure 1 BB0703 (PICkit 2)

Description:
- There are **3 LEDs** (**BUSY**, **TARGET**, and **POWER** from left to right, it could be SMD or through hole type LEDs) and 1 push button (**PROGRAM**) on the top of BB0703 (PICkit 2), as shown in figure 1.
- There are 3 connectors assembled on BB0703 (PICkit 2): **a power jacket**, an **RJ12 6-pin ICSP socket**, and a **USB connector** (type B or Mini-B).
- Only the USB connector and the ICSP interface are necessary to make the PICkit 2 function well.
- The positive center (⊖—⊙—⊕) power jacket is an enhanced feature (optional). It provides 100 mA power supply from external power source for PTG feature. (A compatible wall mount power supply is available at Au Group Electronics, part#: PWR-912V-CP)
- The RJ12 6-pin ICSP socket provides ICSP interface as shown in figure 2, pin 1 is close to the power jacket. The function of each pin is defined as below
    1. Pin 1 – Vpp
    2. Pin 2 – Vdd
    3. Pin 3– Ground
    4. Pin 4– ICSPDAT (RB7)
    5. Pin 5– ICSPCLK (RB6)
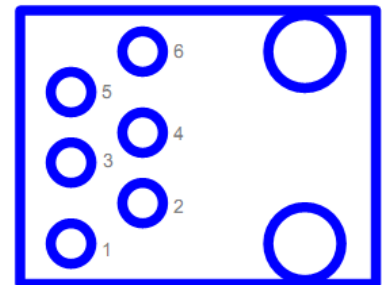   6. Pin 6 – AUX

Figure 2 RJ12 6-Pin ICSP Socket

- One RJ12 6-pin **reverse** cable is **provided** for free! (Au Group Electronics part#: CBL-RJ12-RVS, available at http://www.auelectronics.com/Hardware-CB0703.htm) The configuration of the reverse cable is shown in figure 3.
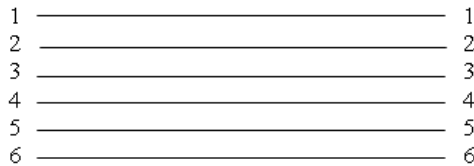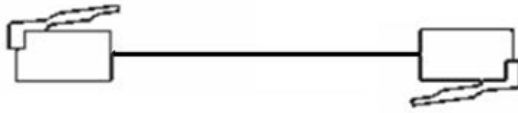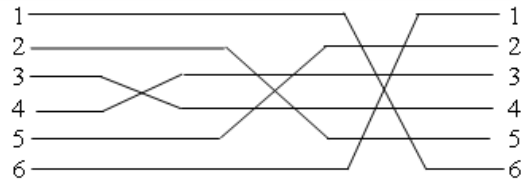
Figure 3 RJ12 ICSP 6 Pin **Reverse** Cable

Figure 4 RJ12 6-Pin **Standard** Cable

Note:

1. BB0703 (PICkit 2) and a **RJ12 6-pin reverse cable** can be used directly with target board/programmer developed for ICD2, ICD3, RealICE.
2. Because of the way PICkit2 pinout is defined, and the fact that signals are reversed by the "**RJ12 6-pin standard cable**" (shown in figure 4.), if used, the signal output of the RJ12 6-pin **standard cable** from BB0703 (PICkit 2) is **not compatible** with ICD2 and its cables.
3. User must change the connection accordingly to target board if switching development tools between an ICD2 and a BB0703 (PICkit 2).

Step by Step operation:

1. Install Microchip "MPLAB" and "PICkit 2 Programmer" if not installed before.
2. Using USB cable to connect the PICkit 2 with computer.
3. Connect the ICSP socket with target board
4. Load application software such as "MPLAB" or "PICkit 2 Programmer", it is ready for programming or debugging

INI File Setting change for BB0703+256K (256K byte Program-to-Go only):

1. Open the INI file (C: Program File\Microchip\PICkit 2 V2\PICkit2.ini) in Notepad or any other text editor
2. Find the following line in the INI file: PTGM: **0**
3. Edit the value to 1:   PTGM: **1**
4. Save and close the INI file

Limited Life Time Warranty:

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