

KV150Pro – USB PIC PROGRAMMER

This documentation was written May 5, 2007.

KV150Pro is a second generation USB only microchip PIC programmer introduced by our company. It supports some of the newest 18F series of PICs, in addition to the 10C, 12C(F) and 16C(F) series. The programmer supports reading, burning and code-protection functions and burning speed and burning reliability has been greatly improved over the first generation PIC programmer. A list of currently supported PICs is shown below. More PICs will be added with the next release of the software. Please come and check our website regularly for more info about new software updates.

10 series: PIC10F200* PIC10F202* PIC10F204*
PIC10F206* PIC10F220* PIC10F222*

12C series: PIC12C508 PIC12C508A PIC12C509
PIC12C509A PIC12C671 PIC12C672 PIC12CE518
PIC12CE519 PIC12CE673 PIC12CE674

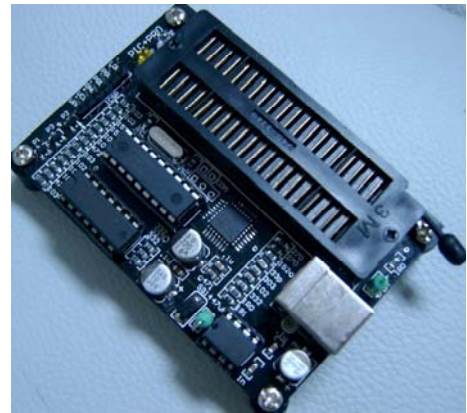
12F series: PIC12F508 PIC12F509 PIC12F629
PIC12F635 PIC12F675 PIC12F683

16C series: PIC16C505 PIC16C554 PIC16C558
16C61 16C62 16C62A 16C62B PIC16C63
PIC16C63A 16C64 PIC16C64A PIC16C65 16C65A
PIC16C65B PIC16C66 PIC16C66A PIC16C67
PIC16C620 PIC16C620A PIC16C621 PIC16C621A
PIC16C622 PIC16C622A PIC16C71 PIC16C71A
PIC16C72 PIC16C72A 16C73 PIC16C73A
PIC16C73B PIC16C74 PIC16C74A PIC16C74B
PIC16C76 PIC16C77 PIC16C710 PIC16C711
PIC16C712 PIC16C716 PIC16C745 PIC16C765
PIC16C773 PIC16C774 PIC16C83 PIC16C84

16F series: PIC16F505 PIC16F506 PIC16F54
PIC16F57 PIC16F59 PIC16F627 PIC16LF627A
PIC16F627A PIC16F628 PIC16LF628A PIC16F628A
PIC16F630 PIC16F636 PIC16F639* PIC16F648A
PIC16F676 PIC16F683 PIC16F684 PIC16F685*
PIC16F687* PIC16F688 PIC16F689* PIC16F690*
PIC16F716 PIC16F72 PIC16F73 PIC16F74 PIC16F76
PIC16F77 PIC16F737 PIC16F747 PIC16F767
PIC16F777 PIC16F785 PIC16F83 PIC16F84
PIC16F84A PIC16F87 PIC16F88 PIC16F818
PIC16F819 PIC16F870 PIC16F871 PIC16F872

PIC16F873 PIC16F873A PIC16F874 PIC16F874A
PIC16F876 PIC16F876A PIC16F877 PIC16F877A
PIC16F913 PIC16F914 PIC16F916 PIC16F917

18 series: PIC18F242 PIC18F248 PIC18F252
PIC18F258 PIC18F442 PIC18F448 PIC18F452
PIC18F458 PIC18F1220 PIC18F1320 PIC18F2220
PIC18F2320 PIC18F4220 PIC18F4320 PIC18F6525
PIC18F6621 PIC18F8525 PIC18F8621 PIC18F2331
PIC18F2431 PIC18F4331 PIC18F4431 PIC18F2455
PIC18F2550 PIC18F4455 PIC18F4550 PIC18F4580
PIC18F2580 PIC18F2420 PIC18F2520 PIC18F2620
PIC18F6520 PIC18F6620 PIC18F6720 PIC18F6585
PIC18F6680 PIC18F8585 PIC18F8680



The following highlights the important features of this PIC programmer:

1. The onboard firmware is upgradeable via software. With each new release of the software, the firmware will be updated to support new PICs;
2. Chip programming speed has been optimized, and most of the PICs will be programmed twice as fast as our first generation PIC programmer;
3. Precision voltage control circuitry guarantees better V_{pp} and V_{cc}, thus renders burning process more reliable and best successful rate of burning can be achieved;
4. ROM data can be easily read out with the better designed software;
5. This programmer comes standard with a high quality universal 40pin 3M ZIF socket, which makes programming a lot easier and a fun process.
6. The programming software QL2005EN is compatible with Windows 98, Windows 2000/NT and Windows XP.

Software

Find the installer folder on the included CD and run QL2005EN.MSI. It creates and unloads software to C:\Program Files\QL2005EN. A shortcut to the software will also be created on the desktop for your convenience. Please print and read the latest Readme.txt file in conjunction with this document.

USB Drivers

You will need to download and install USB drivers from <http://www.ftdichip.com>. These drivers are being updated frequently. At this time they can be found at

<http://www.ftdichip.com/FTWinDriver.htm>. The top heading is VCP Drivers for Win'98 / ME / 2000 / XP (with enhanced BL series support). We included r9052154.zip in the software CD, located in the USB drivewr folder. Just unpack it, then run Start/Settings/ControlPanel/Add Hardware. Disregard the Microsoft Uncertified Driver warning.

You can download a Help file AN232-05 from <http://www.ftdichip.com/FTApp.htm> to guide you through the USB driver installation if you are unsure of how to do it. You can find the COM port number of the USB driver by going to Start/Settings/Control Panel/System/ Hardware/Device Manager/Ports (COM & LPT). In our system it is COM 4. The first time QL2005EN is run you must set the Port to the appropriate number (File/Port). QL2005EN will auto detect this programmer as K150/QL2005 so long as the COM port is selected.

Connecting Up

Use the included USB cable to connect this programmer with your PC. Launch QL2005EN and select the correct com port. The hardware will be automatically detected as K150/QL2005.

Remove any chips from the programming socket before powering the programmer up or down.

This programmer takes power from USB port. It has a built-in DC-DC converter IC to supply necessary Vpp voltages. Once you connect the USB cable, the

Power LED will light up. Next start the QL2005EN software. Make sure the correct COM port is selected. If you forget which USB COM port is installed you can always look it up at Start>Settings>Control Panel>System>Device Manager>Ports. Note the 'Fly Window' under Options that allow this programmer to be used with MPLAB when a new hex file is compiled.

No-Keypress Programming

Flash chips are automatically erased in this mode if they are not blank.

ICSP

Click Options/ ICSP Mode. Does not support low voltage programming. The LOW pin is an open collector output, which when active will pull the LOW pin to ground. It can be used in ICSP to hold LVP pin low while programming, or the OSC1 pin, or any part of the target board, which may need control (in this manner) during programming. See QL2005EN Help for full details.

Software and Firmware Upgrades

We regularly update the software and firmware to add more PIC support and new functions. Please check our website for more info.

Trade discounts are available for bulk quantity purchases of this product. Please contact our Sales Team to discuss your requirements.

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