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PICKit 2 Development Programmer/Debugger [Buy it Now](#)

Part Number: DV164121

[Click for PICKit 2 Overview Presentation](#)

The PICKit™ 2 Development Programmer/Debugger ([PG164120](#)) is a low-cost development tool with an easy to use interface for programming and debugging Microchip's Flash families of microcontrollers. The full featured **Windows®** programming interface supports baseline (PIC10F, PIC12F5xx, PIC16F5xx), midrange (PIC12F6xx, PIC16F), PIC18F, PIC24, dsPIC30, dsPIC33, and PIC32 families of 8-bit, 16-bit, and 32-bit microcontrollers, and many Microchip Serial EEPROM products. With Microchip's powerful MPLAB Integrated Development Environment (IDE) the PICKit™ 2 enables in-circuit debugging on most PIC® microcontrollers. In-Circuit-Debugging runs, halts and single steps the program while the PIC microcontroller is embedded in the application. When halted at a breakpoint, the file registers can be examined and modified.

What's New!

[PICKit 3](#)

[MPLAB IDE](#)

[PICKit 2 v2.61](#)

[PIC24FJ Bug Fix](#)

[Device File 1.62.14](#)

New device support. Compatible with application version 2.61.

[PK2CMD v1.20](#)

Faster PIC24, dsPIC33 Programming, new features.

[Ask questions and get help on the Microchip Programmers Discussion Forum](#)

[Click here for Programming and Debug device support list.](#)

The PICKit™ 2 is also available bundled with a demo board in three kits:

[PICKit™ 2 Debug Express](#)

Features of PICKit 2 Debug Express:

- PICKit 2 Development Programmer/Debugger
- 44-pin demo board with PIC16F887 Midrange PIC microcontroller
The PIC16F887 may be debugged directly without any additional hardware.
- A series of **12 Lessons** on assembly programming that cover I/O, A/D converters, timers, interrupts, and data tables (All source code files are provided)
- A **Debugging Tutorial** on using the PICKit 2 as a debugger with the MPLAB IDE (Ch. 4 of the PICKit 2 User's Guide)
- Getting Started in C** tutorial on developing and debugging in C with a FREE **CCS PCM™ Midrange C Compiler Demo*** for PIC16F887(contained on the PICKit 2 CD) *2kWord Program Limit.
- Getting Started in C** tutorial on developing and debugging in C with a FREE **HI-TECH PICC™ LITE C Compiler** with MPLAB IDE
- FREE! Microchip's **MPLAB IDE** software for a complete code development environment

[DV164121](#) (purchase on Microchip Direct)



[PICKit™ 2 Starter Kit](#)

Features of PICKit 2 Starter Kit

- Low pin count demo board supporting 8/14/20-pin mid range PIC microcontrollers
- 20-pin PIC16F690 Midrange microcontroller
Note: Requires the AC162061 ICD Header and AC164110 adapter to debug.
- A series of **12 Lessons** on assembly programming that cover I/O, A/D converters, timers, interrupts, and data tables (All source code files are provided)
- Getting Started in PICBASIC PRO** tutorial on developing and debugging in BASIC with a FREE **microEngineering Labs PICBASIC PRO™ Demo Compiler** (contained on the PICKit 2 CD)
- HI-TECH PICC™ LITE C Compiler** with MPLAB IDE.
- FREE! Microchip's **MPLAB IDE** software for a complete code development environment

[DV164120](#) (purchase on Microchip Direct)



[PIC18F4xK20 Starter Kit](#)

Features of PIC18F4xK20 Starter Kit:

- PICKit 2 Development Programmer/Debugger
- PIC18F4XK20 Starter Kit board with PIC18F46K20 microcontroller and OLED display.
The PIC18F46K20 may be debugged directly without any additional hardware.
- A series of **12 Lessons** on using the MPLAB IDE with PICKit 2 Programmer/Debugger and **MPLAB C Compiler for PIC18 MCUs** to program and use PIC18F4xK20 MCUs and peripherals (All source code files are provided)
- Demo programs and source code.

[DV164124](#) (purchase on Microchip Direct)



FREE! Download of Microchip's **MPLAB IDE** software for a complete code development environment

The PICKit 2 Starter Kit and PICKit 2 Debug Express Kits also contain

- Easy to use Windows® programming interface for programming Microchip's Flash family of microcontrollers
- UART Tool software for direct serial communications with a microcontroller RX/TX pins through the PICKit 2.
- Logic Tool software for simple logic signal stimulus and monitoring, with a 3-channel logic analyzer.
- PICKit 2 Programmer-To-Go support for programming devices without a PC.
- PICKit 2 User's Guide (included on CD ROM)
The above items are also available for download from the bottom of the webpage.
- User's Guide (with lessons) for the included Demo Board
- Selected Application Notes and Datasheets
- Code Examples in assembly and C
- A FREE version of the CCS PCB™ C Compiler for Baseline PIC MCUs (contained on the MPLAB CD). The PIC MCU devices included with the kits above are Midrange or PIC18 devices and thus not supported by this Baseline compiler.
- USB interface cable

Part Number	Description
PG164120	PICKit 2 only
DV164120	PICKit 2 Starter Kit
DV164121	PICKit 2 Debug Express
DM164124	PIC18F4xK20 Starter Kit
AC164110	RJ-11 to ICSP Adapter

PICKit 2 Programmer-To-Go

This feature allows a hex file to be downloaded to the PICKit 2 to later program PIC microcontrollers without a PC! The PICKit 2 Programmer software includes documentation and an easy Programmer-To-Go Wizard.

PICKit 2 Programmer Tools

PICKit 2 Programmer UART Tool
Use the PICKit 2 for PIC MCU serial communications

PICKit 2 Programmer Logic Tool Analyzer
Use the PICKit 2 to capture digital waveforms in a circuit.

Low Cost Demo Boards and Programming Adapters

A variety of low cost demo boards and programming boards compatible with PICKit™ 2 are available to help get started developing with and evaluating Microchip PIC® microcontrollers from the tiny PIC10F to 80-Pin devices.

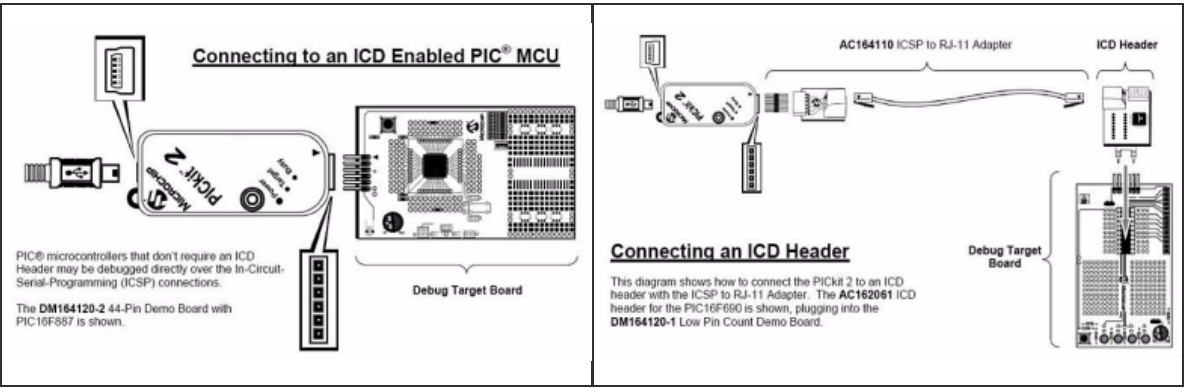
[Click here to choose the best demo board for your needs!](#)

Debugging and Using In-Circuit-Debug (ICD) Headers

Many midrange devices and all baseline devices require an ICD header to enable debugging. Other midrange, all PIC18F and all PIC24/dsPIC33 devices may be debugged directly using the ICSP programming interface. The ICD header is a small PCB that includes a '-ICD' version of the microcontroller, and plugs into the DIP socket footprint of the part on the target board. For more information, see Chapter 4 of the PICKit 2 User's Guide in the downloads section below. See the "Header Specification" document below or see a list of current devices that use headers [here](#).

Note that the AC164110 RJ-11 to ICSP adapter is required to connect the PICKit™ 2 to an ICD header.

For Baseline & Midrange PIC MCUs requiring ICD headers to debug, see the [Device Support List for the MPLAB IDE](#).



PICKit 2 Programmer software source code is available [here](#). Older software versions are archived [here](#).

PICKit 2 v2.61 application uses the Microsoft® .NET Framework. If installing on a computer that does not have an Internet connection and does not already have the .NET Framework, the **PICKit 2 v2.61 Install with .NET Framework** includes all files necessary to install both the framework and the application. The **PICKit 2 v2.61 Install** will download the necessary files to install the .NET framework from the web during the install.
PICKit 2 v2.61 supports the Windows Vista 64-bit OS.

Downloads

Windows Software & Firmware	Size	D/L
PICKit 2 V2.61 Install	3.9 MB	
PICKit 2 V2.61 Install with .NET Framework	30.3MB	
Readme for PICKit 2 V2.61	57 KB	
PICKit 2 Firmware V2.32	27 KB	
PK2CMD V1.20 PICKit 2 Command Line Interface	118 KB	
Linux & Mac OS X Software (Unsupported)	Size	D/L
<i>Microchip Technology Inc. does not provide support for this Linux and Mac OS software, which is provided "as is." See included Readme files for more information.</i>		
PK2CMD V1.20 Linux & Mac OS X Source Code with Makefile	218 KB	.tar.gz
PK2CMD V1.20 Linux Kernel 2.4 Executable Binary	139 KB	.tar.gz
PK2CMD V1.20 Linux Kernel 2.6 Executable Binary	137 KB	.tar.gz
PK2CMD V1.20 Mac OS 10.4 & 10.5 Universal Binary	216 KB	
Code Examples	Size	D/L
PICKit 2 Starter Kit Lessons	620 KB	
PICKit 2 Debug Express Lessons (PIC16F887)	510 KB	

Downloads

Title	Date Published	Size	D/L
28-Pin Demo Board User's Guide	2/27/2007 4:39:27 PM	291 KB	
44-Pin Demo Board User's Guide	4/3/2007 4:33:53 PM	519 KB	
Low Pin Count User's Guide	7/6/2005 1:11:00 PM	452 KB	
MPLAB Integrated Development Environment (IDE) Brochure	7/23/2009 11:35:33 AM	371 KB	
PIC18F13K50/PIC18F14K50 Microcontrollers Product Overview	1/20/2011 10:07:29 AM	167 KB	
PICKit 18-pin demo board schematics (DM164120-4)	5/6/2010 5:15:00 PM	113 KB	
PICKit 2 64/80-Pin PIC18J Demo Files	2/1/2007 10:34:00 AM	2 KB	
PICKit 2 64/80-Pin PIC18J Demo Schematic	4/24/2008 2:46:46 PM	173 KB	
PICKit 2 64_80-Pin PIC18J Demo Board Info	2/1/2007 10:17:00 AM	321 KB	
PICKit 2 Debug Express Product Overview	4/7/2008 11:18:41 AM	511 KB	

PICKit 2 Logic Tool User Guide	7/16/2008 11:38:35 AM	489 KB	
PICKit 2 Microcontroller Programmer User's Guide	2/27/2008 11:16:05 AM	2126 KB	
PICKit 2 Overview Presentation PPT and PDF	10/3/2008 11:27:31 AM	876 KB	
PICKit 2 Programmer-To-Go User Guide	2/2/2009 11:44:28 AM	491 KB	
PICKit 2 Starter Kit Product Overview	7/7/2005 1:29:00 PM	75 KB	
Processor Extension Pak and Header Specification	6/22/2012 8:47:53 PM	1252 KB	
Quick Guide to Microchip Development Tools	5/22/2012 8:19:20 AM	5399 KB	
Software and Hardware Solutions for the 32-bit Designer	2/14/2013 4:03:18 PM	12118 KB	

