red lion

Tel +1 (717) 767-6511
Fax +1 (717) 764-0839
www.redlion.net

Bulletin No. TP16KIT-B
Drawing No. LP0499
Released 01/06

MODEL TP16KIT - T16/P16 PROGRAMMING KIT

- *ALLOWS PROGRAMMING OF ANY T16 OR P16 USING A PC SERIAL PORT*
- *KIT CONTAINS EVERYTHING REQUIRED FOR DIRECT LINK TO AN RS232 PORT ON A PC*
- *PROGRAM WITHOUT POWERING CONTROLLER*
- *WINDOWS® CONFIGURATION SOFTWARE*

GENERAL DESCRIPTION

The TP16KIT comes with everything you need to program any T16 or P16 controller with your PC. The kit consists of the T/P16 Programming Module, a 7' length interface cable, T/P16 User Software and DC wall-supply (T/P16KIT1 only). The Windows based software allows easy configuration, file storage, download, upload and calibration of T16 and P16 controllers. The module converts the RS-232 signals from a PC's serial port into the required logic level for the controller's PC link port. To connect to a USB port on your PC, a USB to serial converter needs to be obtained.

The module is primarily intended for system designers or customers who use T16 and P16 controllers. The kit provides the ability to program multiple controllers quickly and easily, when compared to programming through the front panel keypad.The T16 and P16 controllers can be programmed prior to installation, without having to connect power to the rear terminals. For the end customer, programming changes to multiple controllers can be made quickly and reliably on the factory floor by using the programming module with a laptop computer.

The module kit is available in two versions. T/P16KIT1 includes a 115 VAC wall transformer. This provides power to the module, and in addition, power for the T16 and P16 controllers. This allows the T16 or P16 controller to be programmed prior to installation, without having to make any connections to the controller's rear power terminals. T/P16KIT2 does not come with the power supply. Power has to be supplied either to the controller, or to the module with the customer's own DC supply.

CONSTRUCTION

The module is housed in a plastic enclosure with connectors located on both ends. The RS-232 end has a 9 pin female D-sub connector and is designed to plug directly into the serial port connector on a PC. The opposite end of the module has a 6-position terminal block header and a male pin-type power jack. With the interface cable, the module is connected directly to the T16 or P16 controller PC board through a cut out in the controller's case. The 4-wire interface cable consists of the serial "transmit data" and "receive data" signals, along with "DC power" and "common" lines for the T/P16 controller.

SAFETY SUMMARY

All safety related regulations, local codes and instructions that appear in the manual or on equipment must be observed to ensure personal safety and to prevent damage to either the instrument or equipment connected to it. If equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

⚠ **CAUTION: Risk of Danger.**
Read complete instructions prior to installationand operation of the unit.

⚡ **CAUTION:** Risk of electric shock.

GENERAL SPECIFICATIONS

1. **POWER**:
   AC to DC Wall Adapter (TP16KIT1):
       Input: 120 VAC, 60 Hz, 5 W
       Output: 9 VDC, 200 mA
   DC Power Input: 7 to 11 VDC, 200 mA
2. **ENVIRONMENTAL CONDITIONS**:
   Operating Temperature Range: 0°C to 50°C
   Storage Temperature Range: -40°C to 80°C
   Operating and Storage Humidity: 85% max relative humidity (non-condensing) from 0°C to 50°C
   Altitude: Up to 2000 meters
3. **CONNECTIONS**:
   To Computer: 9 pin female D-Sub
   To T16/P16: PC board edge connector
   DC Power Jack: Male power jack for mating 2.1 x 5.5 mm female barrel connector.
   DC Power Terminals: Wire clamping screw terminals (alternate power connection)
4. **CONSTRUCTION**: Program Module is housed in a black plastic Case
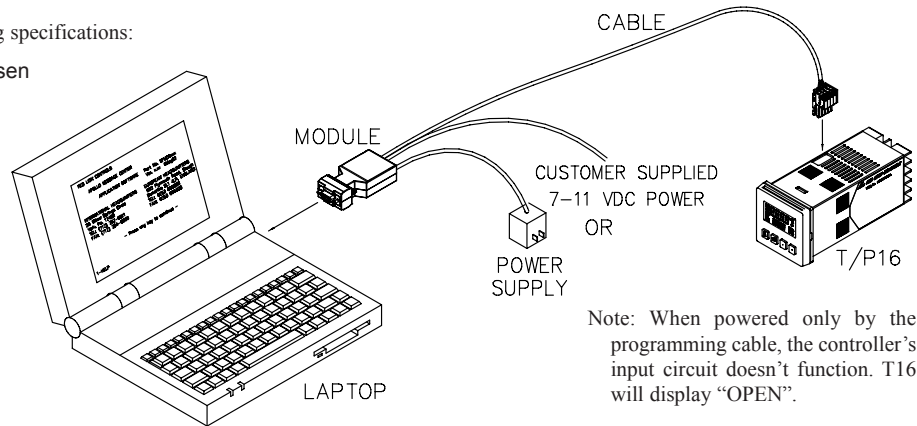
ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBERS
TP16	Programming Cable, Software, Power Supply (115 VAC)	TP16KIT1
	Programming Cable, Software	TP16KIT2

MAKING THE CONNECTIONS

SYSTEM REQUIREMENTS

Crimson 2 is designed to run on PCs with the following specifications:

♦ A Pentium class processor as required by the chosen operating system.

♦ RAM and free disk space as required by the chosen operating system.

♦ An additional 10 MB of disk space for software installation.

♦ Adisplay of at least 800 by 600 pixels, with 256 or more colors recommended.

♦ An RS232 communication port.

♦ Microsoft Windows® 95 or above.

Note: When powered only by the programming cable, the controller's input circuit doesn't function. T16 will display "OPEN".

INSTALLING THE SOFTWARE

Place the CD in your system's CD ROM drive, and follow the instructions that will appear. If no instructions appear, you may have auto-run disabled. In that case, select the Run option from the Start menu, and enter x:\setup, where x is the drive leter of your CD ROM drive. Again, follow the resulting instructions, and the software will be installed.

PROGRAMMING

Getting Started

Run Crimson by double-clicking the icon, or use the start menu. Use the FILE pull-down menu to select a NEW file. Select T16/P16 then choose the specific model number for your controller. All configuration settings for the controller can be made by selecting the individual categories.

PC PORT CONFIGURATION

Go to the LINK pull-down menu and select OPTIONS. Select the computer port (Comm 1-4) that the T16/P16 is connected to.

UPLOADING AND DOWNLOADING

Uploading: Go to the LINK pull-down menu, and select EXTRACT. The software will automatically detect any controller connected and its configuration will be loaded.

Downloading: Go to the LINK pull-down menu, and select UPDATE. A pop-up screen will prompt you to ensure that the proper file is downloaded to the correct controller. Click "OK" to continue.