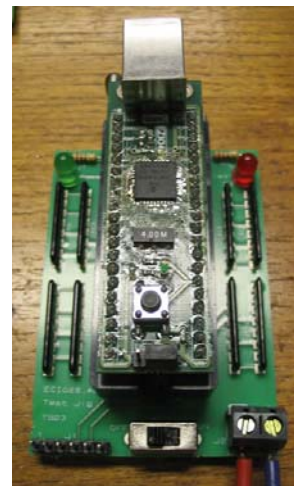


Test routine for the ECIO modules

What you will need.

- ECIO Testing Jig
- Current Limited Power Supply
- PIC Programmer with ICSP support
- PC
- USB type A to type B cable
- Firmware HEX files
- Test Routine Program Files and Programmer



ECIO40P On Testing Jig

Getting Started

- Create a folder on your PC called C:/ECIO/
- Unzip the contents of the ECIO.zip archive into this ECIO folder.
- Run the file C:\ECIO\Driver\Install_ECIO_Drivers.exe
- Click Next, Next, Continue Anyway, Finish to install the drivers.
- Set the current limited power supply to output 5 volts and then connect it the to the screw terminals on the Testing Jig.
- Set the current limited power supply to limit current at around 50mA and switch on the power supply.

The Test Routine – Phase 1

- Insert the ECIO onto the testing jig using a ZIF socket making sure that the USB end of the ECIO is at the same end as the LEDs on the testing jig.
- Make sure that the jumper on the ECIO is set to EXT.
- Switch the switch of the Testing Jig into the ON position
- Test the current consumption on the power supply

Current Consumption	Test Status
Less then 50mA	Pass
More then 50mA	Fail

- Program the ECIO module via the ICSP socket with the corresponding firmware file available from C:\ECIO\Firmware\
ECIO28P - C:\ECIO\Firmware\ECIO28FW.hex
ECIO40P - C:\ECIO\Firmware\ECIO40FW.hex

- Check the status of the LEDs on the test jig.

LED Status	Test Status	Probable Cause
Green LED Lit	Pass	
Red LED Lit	Fail	Short or Broken Track
Both LEDs Off	Fail	Power supply / Oscillator Problem

- If Phase 1 was passed then move to Phase 2

The Test Routine – Phase 2

- Switch the switch of the Testing Jig into the OFF position
- On the PC run the corresponding programming shortcut. The shortcuts can be found in C:/ECIO.

ECIO28P - C:\ECIO\Send ECIO28P.lnk

ECIO40P - C:\ECIO\Send ECIO40P.lnk

- Set the jumper on the ECIO to USB.
- Insert the USB cable between the PC and the ECIO.
- Check the LED status on the testing jig

LED Status	Test Status	Probable Cause
Both LEDs alternating every second	Pass	
One LED flashing	Fail	Short or Broken Track
Both LEDs flashing together	Fail	Short between RB0 and RB1
Both LEDs flashing but not every second	Fail	Oscillator Problem

- Unplug the USB cable from the ECIO.
- Remove the ECIO from the ZIF socket.
- If phase 2 was passed then ECIO has passed the test routine.