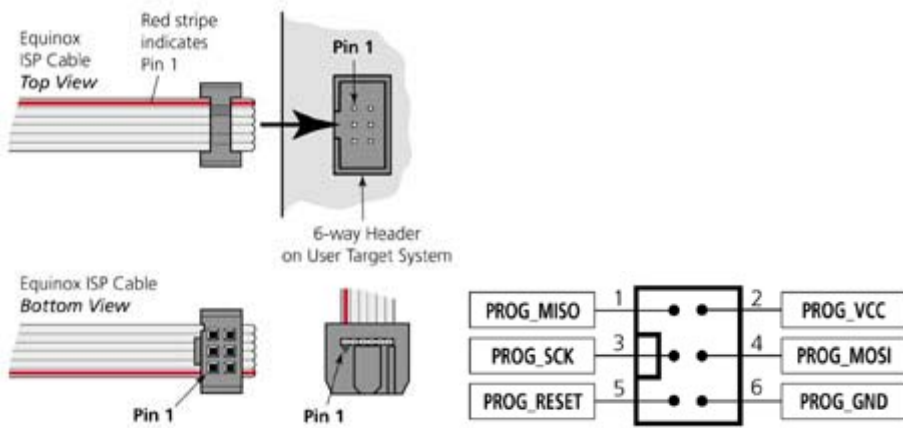# Atmel 6-Pin ISP Connector
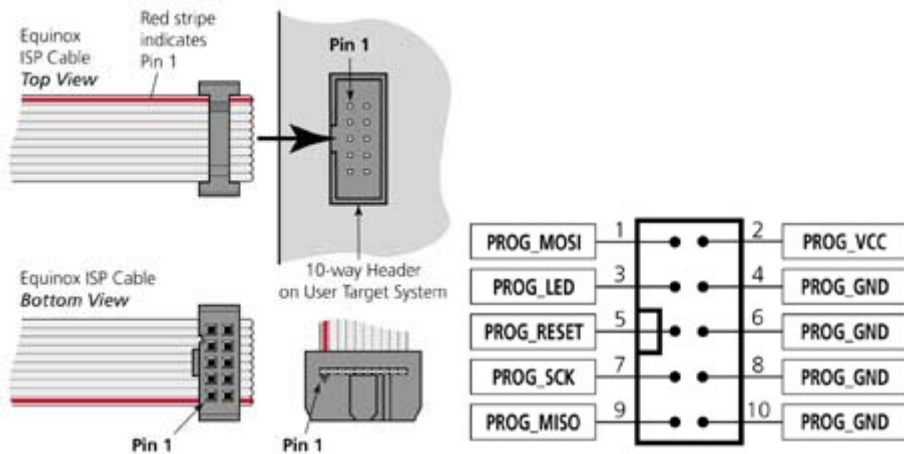

Pin No	Programmer Pin name	Programmer Input / Output	Connect to pin on Target Device	Description
1	PROG_MISO	I	MISO (except for ATmega103/128/64 - connect to TXD pin instead)	**Master In Slave Out** This is the SPI data input pin to the programmer. This pin should be connected to the MISO pin on the Target Microcontroller.
2	PROG_VCC	P	TARGET_VCC	**Target Vcc** This pin should be connected to the Target System Vcc. This voltage could be used to power the programmer depending on the settings of the power switch/jumper on the programmer.
3	PROG_SCK1	O	SCK	**SPI Serial Clock Output** This is the SPI clock output signal.
4	PROG_MOSI	O	MOSI (except for ATmega103/128/64 - connect to RXD pin instead)	**Master Out Slave In** This is the SPI data output pin from the programmer. This pin should be connected to the MOSI pin on the Target Microcontroller.
5	PROG_RESET	O	RESET	**Target RESET control pin** This pin controls the Target Device RESET pin. It will driven HIGH/LOW according to the device type and settings in the 'Pre-program State Machine' tab in the Eqtools project.
6	PROG_GND	P	GROUND	**Ground Connection** Common ground connection between PROGRAMMER and Target System.

Key
O - Output from programmer to Target Device
I - Input to programmer from Target Device
P - Passive eg. GROUND and power rails
N/C - Not connected

Atmel 10-Pin ISP Connector

Pin No	Pin name	Programmer Input / Output	Connect to pin on Target Device	Description
1	PROG_MOSI-1	O	MOSI (except for ATmega103/128/64 - connect to RXD pin instead)	**Master Out Slave In** This is the SPI data output pin from the programmer. This pin should be connected to the MOSI pin on the Target Microcontroller.
2	PROG_VCC	P	TARGET_VCC	**Target Vcc** This pin should be connected to the Target System Vcc. This voltage could be used to power the programmer depending on the settings of the power switch/jumper on the programmer.
3	N/C	-	N/C	Not connected
4	PROG_GND	P	GROUND	**Ground Connection** Common ground connection between the programmer and Target System.
5	PROG_RESET	O	RESET	**Target RESET control pin** This pin controls the Target Device RESET pin. It will driven HIGH/LOW according to the device type and settings in the 'Pre-program State Machine' tab in the Eqtools project.
6	PROG_GND	P	GROUND	**Ground Connection** Common ground connection between the programmer and Target System.
7	PROG_SCK1	O	SCK	**SPI Serial Clock Output** This is the SPI clock output signal.
8	PROG_GND	P	GROUND	**Ground Connection** Common ground connection between the programmer and Target System.

9	PROG_MISO	I	MISO (except for ATmega103/128/64 - connect to TXD pin instead)	**Master In Slave Out** This is the SPI data input pin to the programmer. This pin should be connected to the MISO pin on the Target Microcontroller.
10	PROG_GND	P	GROUND	**Ground Connection** Common ground connection between PROGRAMMER and Target System.

Key
O - Output from programmer to Target Device
I - Input to programmer from Target Device
P - Passive eg. GROUND and power rails
N/C - Not connected