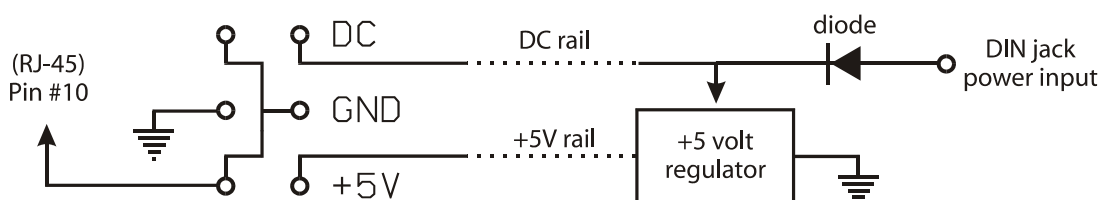


## Jumpering Pin #10 on the Ether-Serial Link RJ-45 serial port connector

### General:

Ether-Serial Link devices have an RJ-45 10-pin connector with a jumper-selectable power input/output option at Pin #10. A jumper is located on the interface board (I/F board), to the right of the RJ-45 10-pin connector, to configure this pin.

### Jumper pin connections (viewed looking onto the component side)



Pin #10 can be used to supply power to serial devices attached to the RJ-45 serial port, or to supply power to the Ether-Serial Link through the serial port.

Pin #10 is separately jumpered for each RJ-45 connector on the Ether-Serial Link. Consequently, each port can be configured independently of the others.

### Jumper settings:

Four jumpering options are possible:

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#### [ no jumper ]



This is the factory default jumper setting. When the connector is unjumpered, Pin #10 is unconnected.

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#### [ DC ]



When the jumper is in this position, Pin #10 is connected to the power input pcb trace. Three scenarios for configuring Pin #10 for DC power exist:

1. Power can be supplied to the Ether-Serial Link via the DIN connector. In this case, the input voltage (after the diode) is present at Pin #10. Voltage can be drawn from Pin #10 to power some external equipment that is connected to the RJ-45 10-pin connector. When drawing power from a multi-port Ether-Serial Link, consider the total possible power draw of the external equipment being connected and powered.

**Note:** The DIN power input has a protective input diode connected in series with the center pin of its connector (as diagrammed above). The cathode of the diode is connected to the power input pcb trace.

2. Power can be supplied to the Ether-Serial Link via Pin #10 of the RJ-45 connector. If no voltage is supplied to the DIN connector, power can be supplied via Pin #10 to the ESL. **Careful consideration must be given to the implications of supplying power to the system in this manner. Consult Lava Engineering before attempting this configuration.**

**Note:** Pin #10 *does not* have a protective input diode connected to its connector.

3. Power can be supplied to the Ether-Serial Link via both Pin #10 of the RJ-45 connector and the DIN connector at the same time. If voltage is supplied both at the DIN connector and at Pin #10 (i.e.: battery back-up), current to power the Ether-Serial Link (150-200ma) will be drawn from the higher-voltage source. **Careful consideration must be given to the implications of supplying power to the system in this manner. Consult Lava Engineering before attempting this configuration.**

**Note:** Pin #10 *does not* have a protective input diode connected to its connector.

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**[ GND ]**



When the jumper is in this position, Pin #10 is connected to the Ether-Serial Link common ground.

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**[ +5V ]**



When the jumper is in this position, Pin #10 is connected to the output of the +5 volt internal power regulator circuit. Voltage of +5 VDC can be accessed by an external device (current limited to \_\_\_\_ ma. max.)

If the internal power regulator circuit is not installed, then a +5 regulated voltage can be supplied to the Ether-Serial Link at Pin #10.