

ETSI Inc. ULC-1, ULC-4, ULC-8 Instructions

The ULC series universal level converters are designed to accept a variety of input signals. The ULC outputs follow the logic state of the inputs at the supply voltage level. In other words, if 5Vdc is applied to an input and the supply voltage is 24Vdc, that channel's output will be 24Vdc.

Input power:

Connect any supply voltage from 5VDC to 24VDC. The power supply should be capable of furnishing enough current for all the output loads connected. Note- if you are using open collector (or drain) or Voltage inputs, the common "-" of the power supply connected to the URM must be tied to a common ground of the equipment supplying the trigger signals.

Outputs

The outputs of the ULC can be used to interface (translate) logic signals between different equipment. Note-in logic translator applications, the input signal equipment, output equipment and power supply must all share a common ground. If driving sirens, strobes or other isolated loads, a common ground is only required when using voltage or open collector input signals. The outputs can supply up to 1 amp of current and will operate at frequencies up to 100Khz. Each output is protected with an automatic resetting fuse. The fuse will reset when the short and load are removed for a few seconds.

Input signals

The ULC can accept Voltage inputs (3-24VDC), open collector (or drain) inputs or a switch / relay (dry contact) inputs. Note- for practical purposes, an open collector can be thought of as a switch to ground. See connection diagram. Note- if you are using open collector (or drain) or Voltage inputs, the common "-" of the power supply connected to the ULC must be tied to a common ground of the equipment supplying the trigger signals.

Voltage / Dry OC jumper

If you are using Voltage trigger signals, set this jumper to the "voltage" position. If you are using switches, relay contacts or open collector input trigger signals, set this jumper to the "Dry / OC" position.

Buffer / Invert jumper

If you require a voltage output when an input voltage is removed, select the "Invert" position. If you require a voltage output when an input voltage is applied, select the "buffer" position.

Unlabeled jumpers near outputs.

Only in special applications should these jumpers require change from factory settings. The ULC-x is supplied from the factory as a "totem pole" output. In other words, when the output is high, one output transistor connects Vsupply to the output and when Lo, the other transistor grounds the output. If you desire a V supply output in the "hi" state and an open circuit in the "lo" state, remove the 2 position jumper and move the 3 position jumper to the upper position. If you desire a grounding of the output during the "hi" state and an open circuit during a "lo", remove the 2 position jumper and move the 3 position jumper to the lower position. Set the buffer/invert jumper to the desired polarity. See Figure 1.

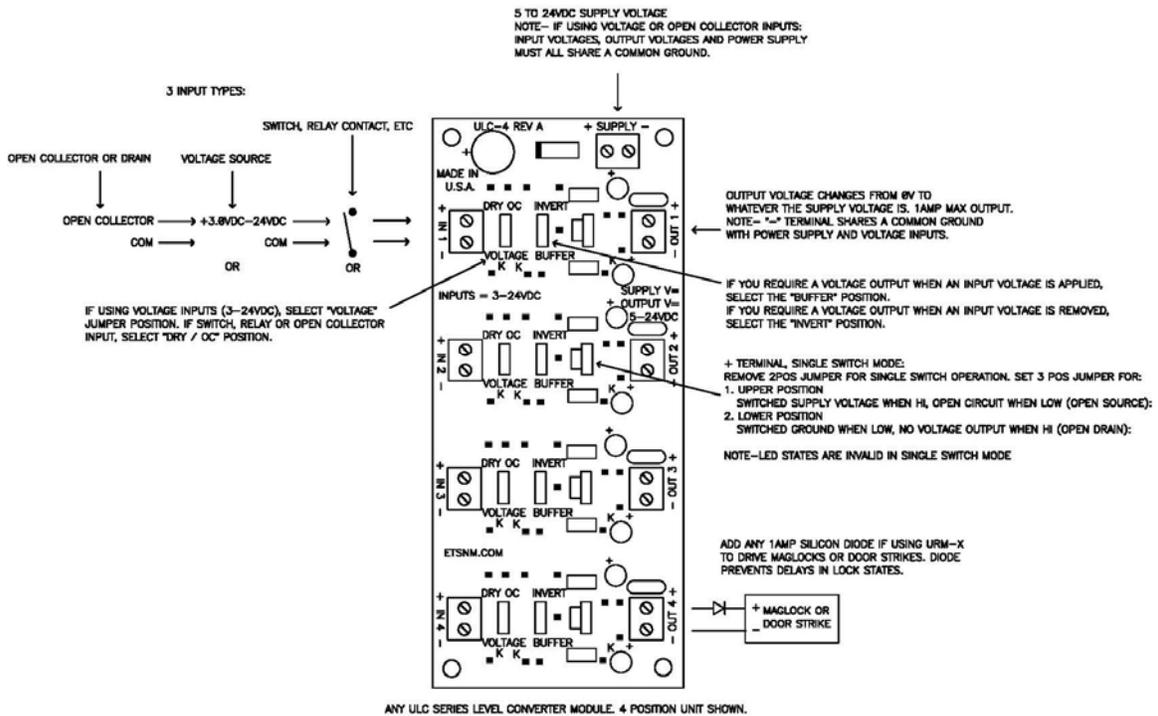


Figure 1.

Warranty

All ETS products carry a one year parts and labor warranty. This warranty does not cover damages as a result of misuse, improper handling of the unit or exposure to extreme temperatures or moisture. At its discretion, ETS reserves the right to repair or replace this unit under the conditions of the warranty. If you experience problems with your equipment call ETS at: 505-888-3923 to obtain a return authorization number. Equipment requiring repair beyond the warranty period or units that have been damaged or are not covered under the warranty can be repaired by ETS for a minimal cost under most conditions.

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