

End-Of-Line (EOL) Concept and Benefits:

End of line resistors (EOLR) are resistors of a specified value that are used to terminate protective loops or zones.

The purpose of EOLR's is to allow the control panel to supervise the field wiring for open or short circuit conditions. How the alarm responds to each depends on the panel as well as system zone programming, but usually, an alarm views an open circuit as a fault or alarm condition, and a short circuit as a trouble or alarm condition (if armed). The purpose of EOLR's is to allow the panel to differentiate between different conditions (Motion Alarm, Tamper Protection and/or Anti-Masking Trouble) by looking for a known resistance.

The benefits of Neo Line™ and EOLR's on protective zones with all concealed wiring is commonly argued by professional installers, as well as EOLR's installed inside the control unit, negating their effectiveness, as well as disabling the EOLR feature and using NC (normally closed) loops for zone definitions. The use of EOLR's is recommended and is particularly important when the field wiring is subject to damage or compromise and to reduce installation time and wires connections.

Crow Runner™ Control panels Series allow the use of "zone doubling," where two zones, each with a different resistor values, are connected in parallel to the same terminals.

Since they are in parallel, the system sees the total of both reduced voltages when both zones are closed. If one opens, that voltage is removed, and because of the different resistors, the system knows which one is open and which remains closed. This effectively doubles the number of zones available on the main board, although it does not change the maximum capacity of the system.

Neo Line™ Terminal Block Connector and On-Board EOL Jumpers

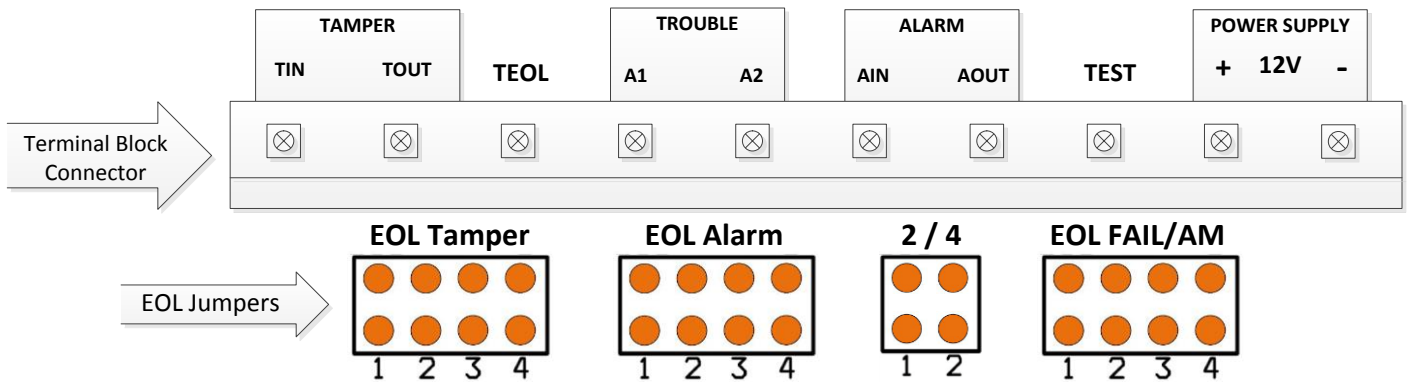
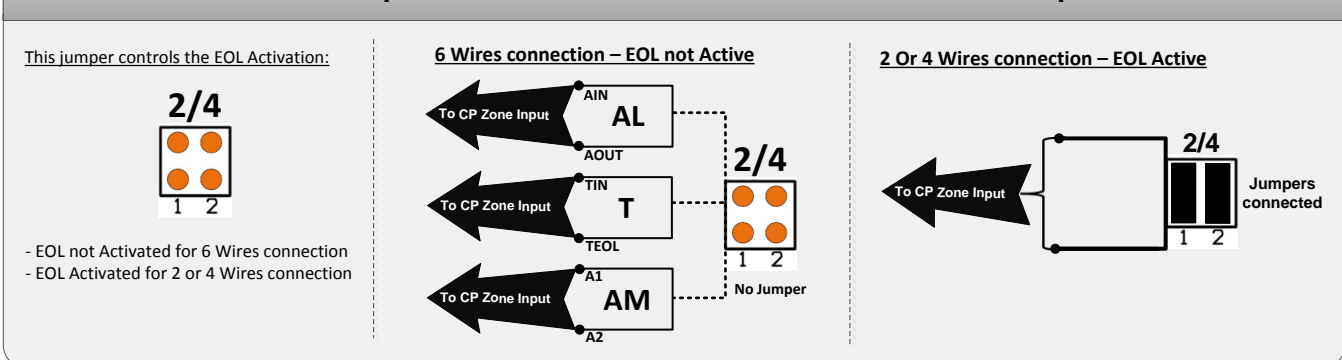


Table 1: Possible Resistors Values Combinations

1K		3K9		5K6		8K2	
2K2		4K7		6K8		10K	

Table 2: Jumper for EOL Activation and Wires connection options

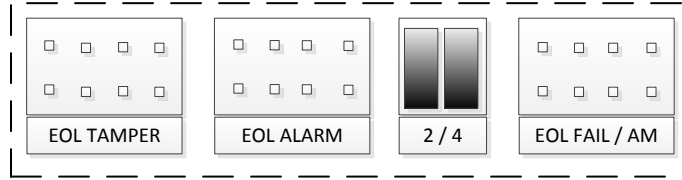


A 2 Wires Connection ALARM & TAMPER & AM

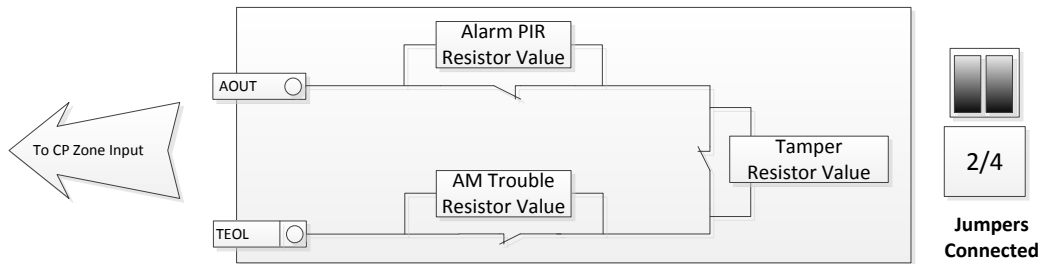
In this case the EOL functionality is activated, the detector is connected to the control panel by using resistors values. Alarm, AM Trouble and Tamper are connected on the same zone connector but allowing “zone doubling”.

Jumpers Setting

Resistors values according to CP model.
Refer to available resistors values specified in Table 1

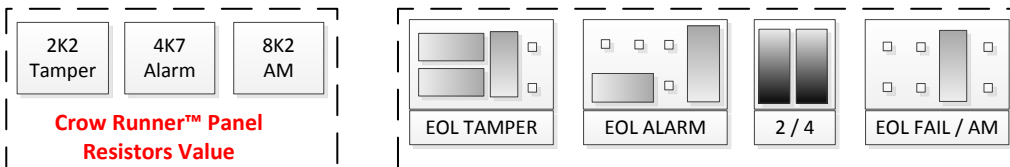


Wiring Connection Diagram

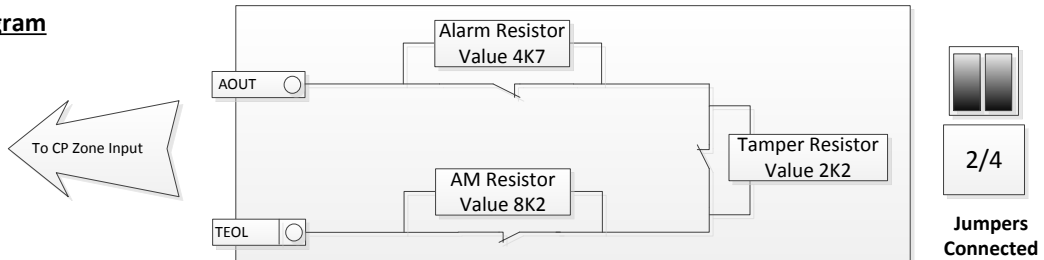


EXAMPLE 2 wires Connection ALARM & TAMPER & AM on CROW RUNNER™ CONTROL PANEL

The Crow Runner™ control panel EOL defaults values are: 4K7 for PIR Alarm | 2K2 for Tamper | 8K2 for AM Trouble



Wiring Connection Diagram

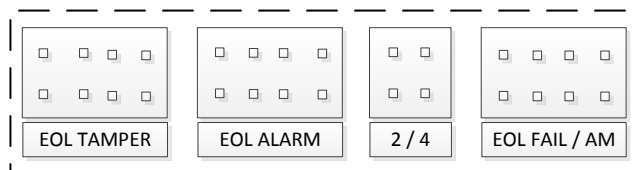


B 6 Wires Connection ALARM | TAMPER | AM

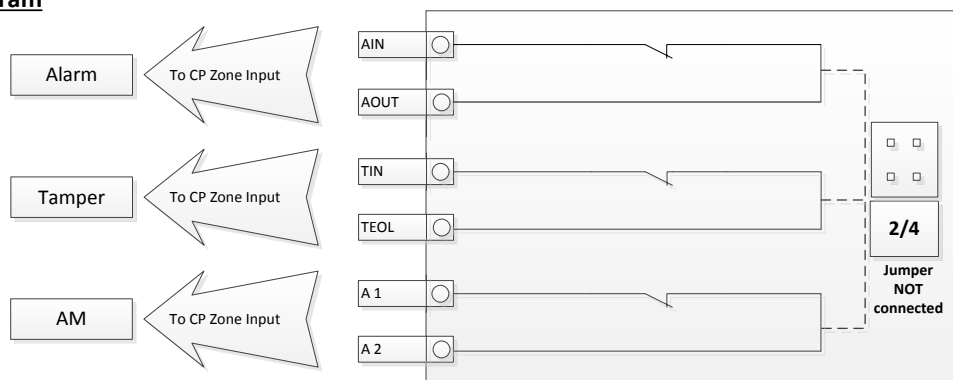
In this case the EOL functionality is not activated, the detector is connected to the control panel without resistors. Alarm, Tamper and AM Trouble are connected to 3 different zones.

Jumpers Setting

Resistors values according to CP model.
Refer to available resistors values specified in Table 1



Wiring Connection Diagram

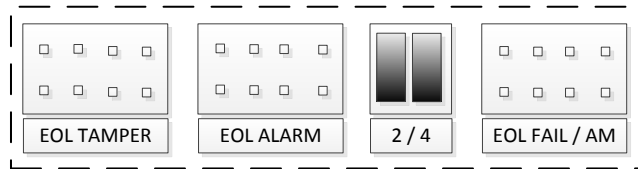


C 4 Wires Connection For ALARM, TAMPER and Anti-Mask (AM) Trouble

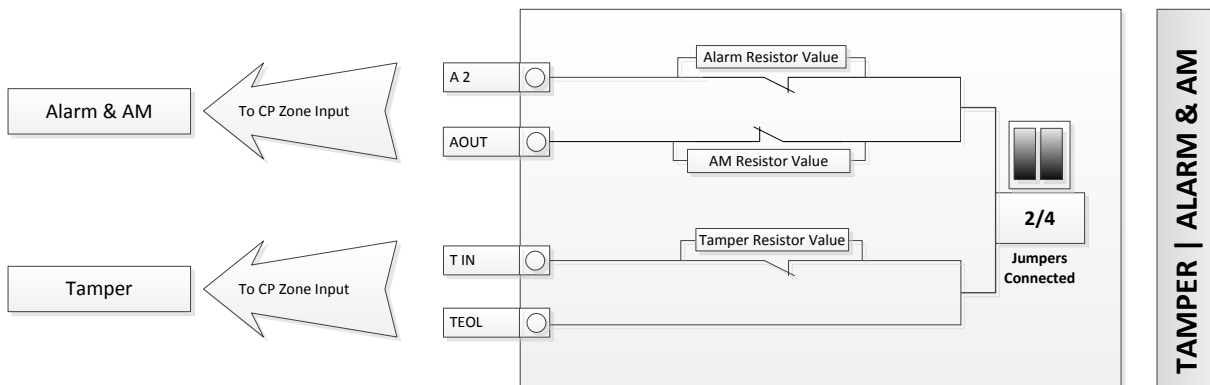
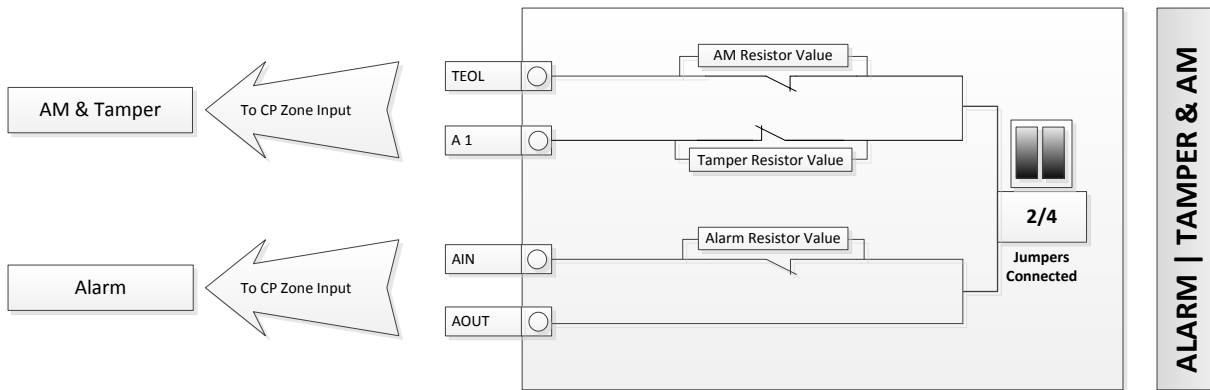
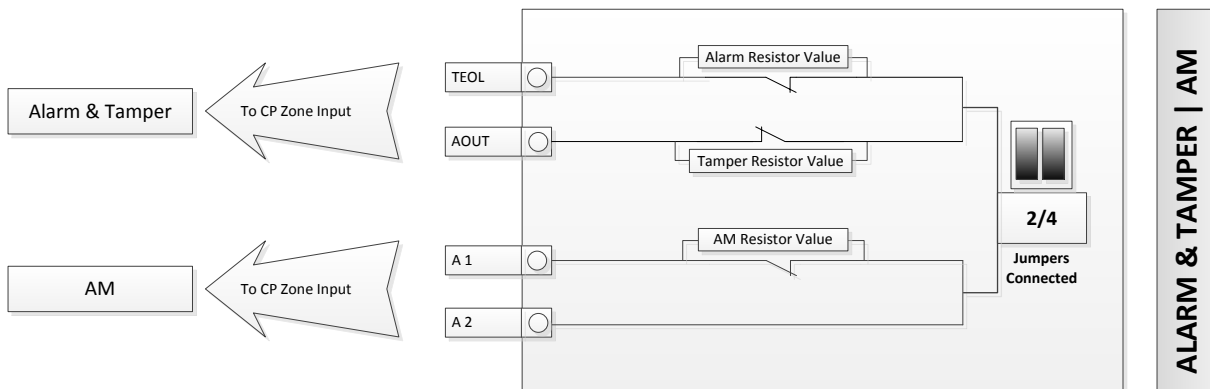
In this case the EOL functionality is activated, the detector is connected to the control panel with resistors.

Jumpers Setting

Resistors values according to CP model.
Refer to available resistors values specified in Table 1



Wiring Connection Diagram



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