

Spark/Arc Detection Socket Wiring Instructions for Scanning Devices Spark/Arc Detection Amplifiers

Wire input power, photosensor and control output to the eleven pin socket prior to installing the photoelectric amplifier. Wire according to the table and diagram below for the specific model and operation required.

Drain/Shield Connection

Connect Photosensor Drain/Shield to Pin 10. Maintain the integrity of the Drain/Shield from sensor barrel to Pin 10.

Jumper

Jumper 1 is a wire connecting the two terminals indicated (not provided). Jumper is required for proper operation.

LED Indicator Light

The amplifier's red LED indicator located inside the case operates differently depending on LIGHT or DARK operation selected by the photosensor's wiring.

LIGHT OPERATION: LED indicator is **ON** when the photosensor detects light.

DARK OPERATION: LED indicator is **ON** when the photosensor is dark.

Sensitivity Adjustment

Sensitivity adjustment located at the top of the amplifier case varies the setpoint at which the amplifier distinguishes dark from light. Turning the adjustment clockwise decreases the light intensity required for the LIGHT state (makes the amplifier more sensitive). Photosensors respond to ambient light. For best results, install photosensors to maximize contrast between the light and dark states. Light shielding from ambient sources may improve detection performance.

Part Number 110B-A (AC Input, Relay Output)	
110 VAC Input Power Dark Operated	110 VAC Input Power Light Operated
1. AC - L1 2. AC - L2 3. Make no connection 4. Make no connection 5. Relay Normally Open 6. Relay Arm 7. Relay Normally Closed 8. Jumper 1 9. Jumper 1 10. Photosensor negative (black) 11. Photosensor positive (white)	1. AC - L1 2. AC - L2 3. Make no connection 4. Make no connection 5. Relay Normally Open 6. Relay Arm 7. Relay Normally Closed 8. Jumper 1 9. Photosensor positive (white) 10. Jumper 1 11. Photosensor negative (black)
Part Number 110B-R (24 VDC Input, Relay Output)	
24 VDC Input Power Dark Operated	24 VDC Input Power Light Operated
1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. Relay Normally Open 6. Relay Arm 7. Relay Normally Closed 8. Jumper 1 9. Jumper 1 10. Photosensor negative (black) 11. Photosensor positive (white)	1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. Relay Normally Open 6. Relay Arm 7. Relay Normally Closed 8. Jumper 1 9. Photosensor positive (white) 10. Jumper 1 11. Photosensor negative (black)
Part Number 110B-D (24 VDC Input, NPN Transistor Output)	
24 VDC Input Power Dark Operated	24 VDC Input Power Light Operated
1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. +12 VDC (regulated) output 6. No Connection 7. NPN transistor collector (switched output) 8. Jumper 1 9. Jumper 1 10. Photosensor negative (black) 11. Photosensor positive (white)	1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. +12 VDC (regulated) output 6. No Connection 7. NPN transistor collector (switched output) 8. Jumper 1 9. Photosensor positive (white) 10. Jumper 1 11. Photosensor negative (black)

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Part Number 110B-K (110V AC Input, Opto-isolator Output)	
110 VAC Input Power Dark Operated	110 VAC Input Power Light Operated
1. AC - L1 2. AC - L2 3. Make no connection 4. Make no connection 5. NPN Opto-isolator Collector 6. No Connection 7. NPN Opto-isolator Emitter 8. Jumper 1 9. Jumper 1 10. Photosensor negative (black) 11. Photosensor positive (white)	1. AC - L1 2. AC - L2 3. Make no connection 4. Make no connection 5. NPN Opto-isolator Collector 6. No Connection 7. NPN Opto-isolator Emitter 8. Jumper 1 9. Photosensor positive (white) 10. Jumper 1 11. Photosensor negative (black)
Part Number 110B-J (24 VDC Input, Opto-isolator Output)	
24 VDC Input Power Dark Operated	24 VDC Input Power Light Operated
1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. NPN Opto-isolator Collector 6. No Connection 7. NPN Opto-isolator Emitter 8. Jumper 1 9. Jumper 1 10. Photosensor negative (black) 11. Photosensor positive (white)	1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. NPN Opto-isolator Collector 6. No Connection 7. NPN Opto-isolator Emitter 8. Jumper 1 9. Photosensor positive (white) 10. Jumper 1 11. Photosensor negative (black)
Part Number 110B-T (24 VDC Input, Sink/Source (NPN/PNP) Transistor Output)	
24 VDC Input Power Dark Operated	24 VDC Input Power Light Operated
1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. PNP transistor collector (Source output) 6. Signal Ground 7. NPN transistor collector (Sink output) 8. Jumper 1 9. Jumper 1 10. Photosensor negative (black) 11. Photosensor positive (white) Note: Both outputs energized simultaneously. Note: Source is from internal +12 Volt supply.	1. 24 VDC negative (signal ground) 2. 24 VDC positive 3. Make no connection 4. Make no connection 5. PNP transistor collector (Source output) 6. Signal Ground 7. NPN transistor collector (Sink output) 8. Jumper 1 9. Photosensor positive (white) 10. Jumper 1 11. Photosensor negative (black) Note: Both outputs energized simultaneously. Note: Source is from internal +12 Volt supply.

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