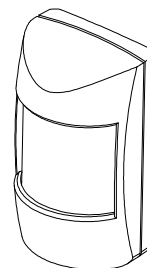


## MODEL NO. AD34

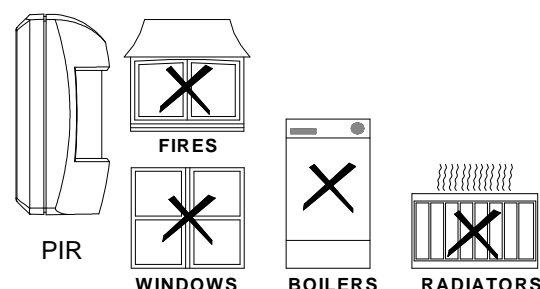
### AD34 G2 PIR Dual Element Features

- Grade 2 dual-element passive infra-red intrusion detector.
- **EXTRA Low** (9 mA) current draw @ 12V DC operation.
- S.M.D. Technology.
- 12m, 90° Convex honey comb, hemispherical infra-red lens.
- Walk test LED.
- High RFI & EMI Immunity.
- Pulse Counter (1, 2 and 4 pulses selectable)
- Temperature compensation for the sensitivity of the PIR.



### Mounting Location

The AD34 is designed for indoor use. It should not be mounted near to large metal objects or on metal surfaces. It needs to be mounted on a wall or in a corner at a height of approximately 2-2.5 meters for the best general coverage in an average room. The detector has been designed to avoid false alarms, nevertheless, it is best to avoid looking directly at sources of heat such as fires and boilers, and always try to keep away from a window. A PIR can look at a radiator but should not be sited above one.



Do not site a PIR where its field of view may be obstructed (e.g. by curtains). Also note that PIRs work best when sensing movement across rather than along their detection beams. You need to consider the need to wire these units back to the Control Unit.

### Mounting the detector

1. Remove and retain the screw from the bottom of the PIR and lift off the cover.
2. Carefully remove the electronic module from its retaining clips, ensuring **not to touch the pyroelectric sensor** (Illustration 1).

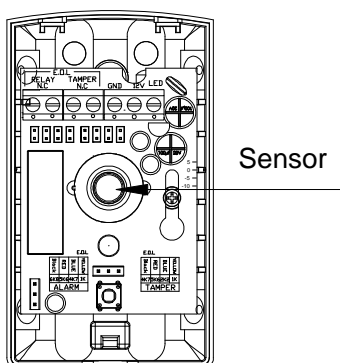


Illustration 1

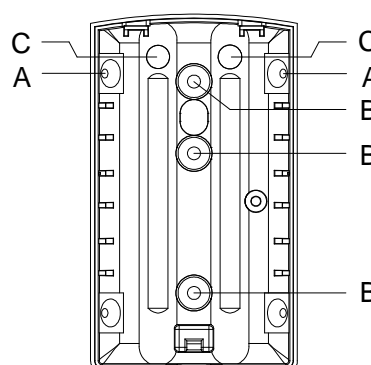


Illustration 2

3. Use mounting points "A", if you are fitting the detector in a corner. Use mounting points "B", if you are fitting the detector on a flat surface. Use a small drill to create two fixing holes at the mounting points (Illustration 2).
4. Hold the base of the PIR in the chosen position, ensuring that the front of the PIR will face towards the center of the protected area, mark and drill two fixing holes in the wall. Choose one of the cable entry holes "C" and make a third hole in the detector base. Put one end of the wire through this hole "C", then secure the PIR to the wall.
5. Replace the electronic module into the retaining clips, ensuring that it is correctly positioned and firmly seated.
6. If required, select the PIR LED "ON" or "OFF" option and the sensitivity (pulse count) by setting the corresponding jumpers on the electronic module. Note that Pulse 1 option is more sensitive than the pulse 4 option. Pulse 1 option is used when it is necessary to activate an alarm on the first detected pulse, or in high security installations – where fast "catch" performance is of greatest importance. Pulse 2 or 4 settings provides improved protection against false alarms caused by all types of environmental disturbances. (Illustration 3)

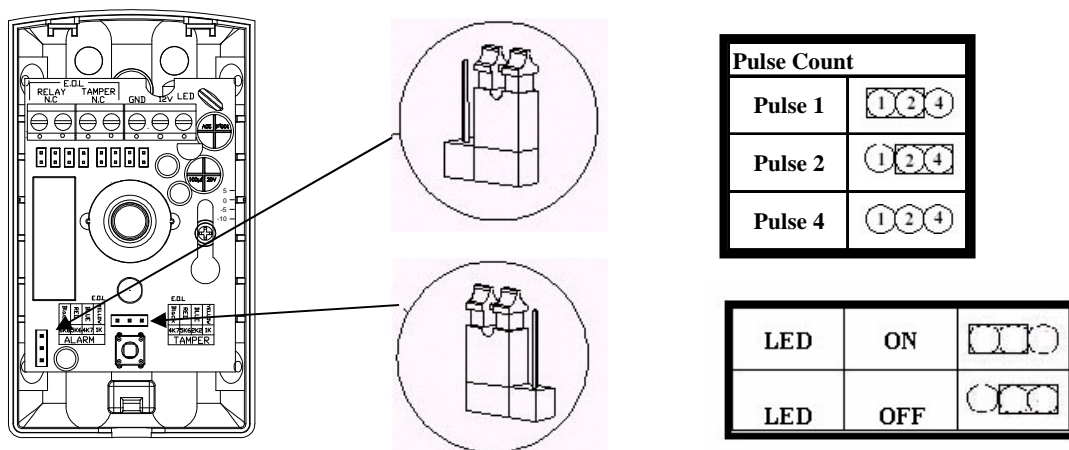


Illustration 3

7. Position the PCB by loosening the PCB screw, and sliding the PCB up or down to the required setting (Illustration 4). The optimal coverage area is obtained if the PCB is on setting '0' (default value).

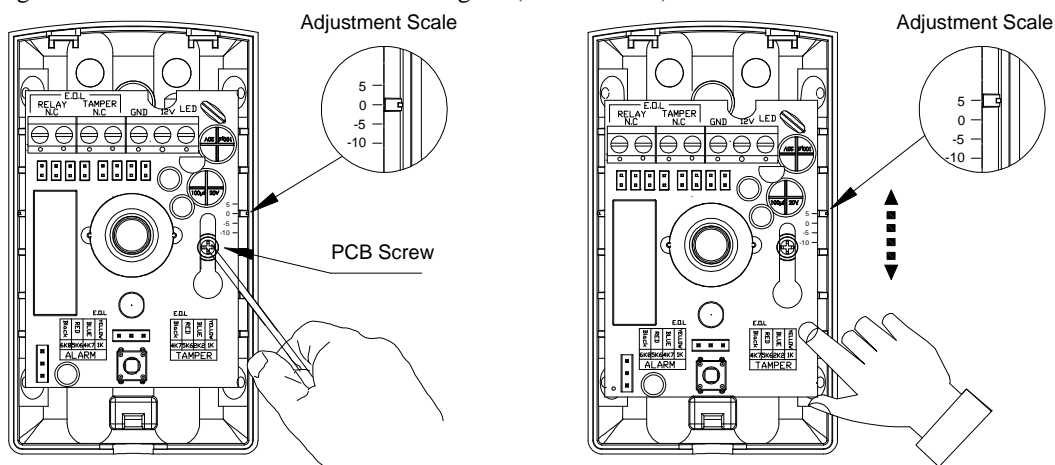
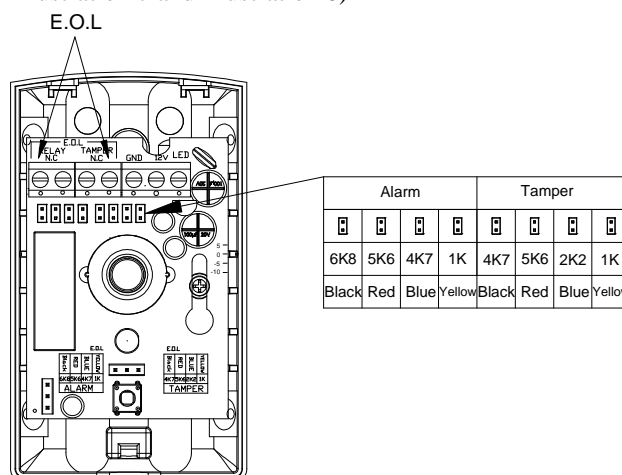


Illustration 4

Vertical Adjustment Setting	Distance range(m)	Coverage Angle
+ 5	14	90°
0	12	90°
-5	9.0	100°
-10	7.0	105°

Note : The distance range is 12m at '0'. An increase coverage angle will decrease the distance.

8. For disable EOL function do not set jumpers of alarm and tamper. (Illustration 6) **Please Note:** for Grade 2 EOL function is required
9. Selectable EOL resistance. Refer to the chart below for the correct end of line resistance, and set jumpers of alarm and tamper. (Illustration 5, Illustration 7 and Illustration 8)

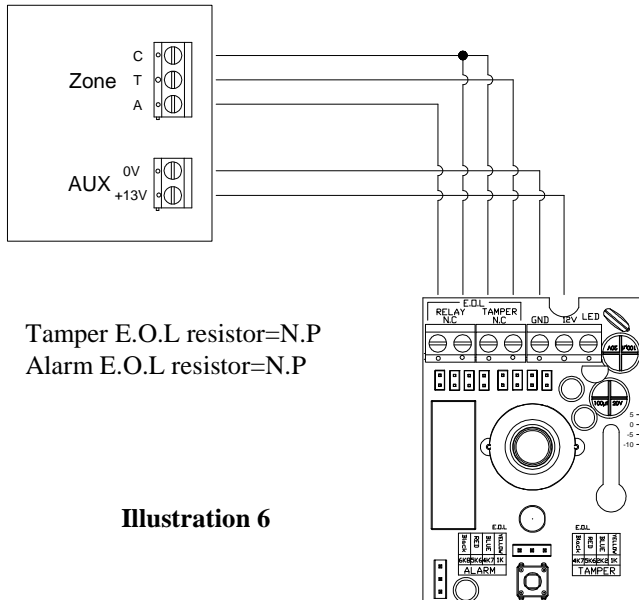


**Control panel types available on this model.**

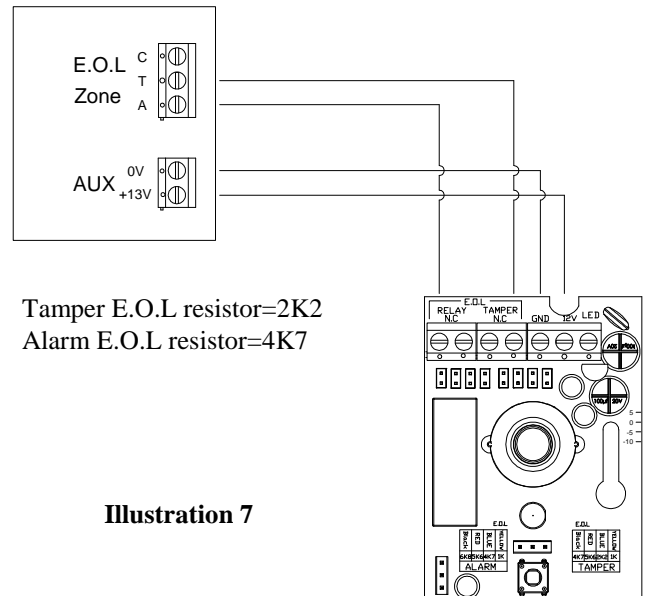
Type	Control Panel	Alarm	Tamper
1	Honeywell, Ademco Microtech	1K	1K
2	Challenger (Force-48), Scantronic, Menvier, Pyronix PCX (12, 22, 44, 128 VID), Texecom, Castle CareTech G3 Plus.	4K7	2K2
3	DSC	5K6	5K6
4	Guardtec	6K8	4K7
5	Pyronix Matrix, PCX SMS, 134, 256.	4K7	4K7

**Illustration 5****Wiring Diagram**

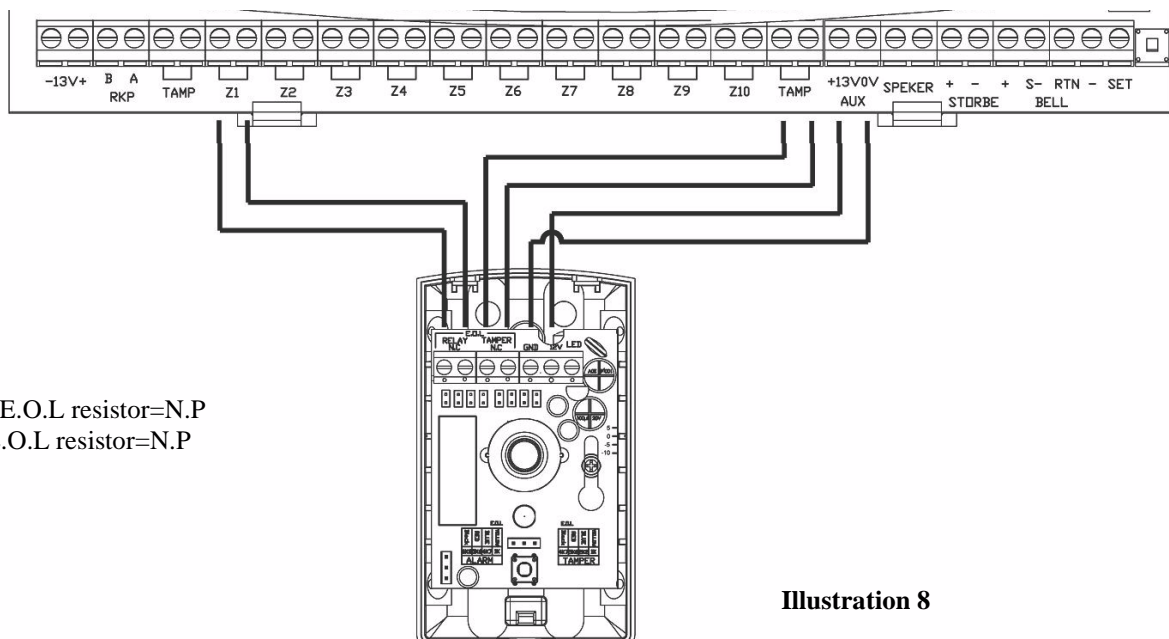
1). Use this wiring configuration when connecting normally closed detection devices to the zone using 6-Wires. (Force-48 illustrated)

**Illustration 6**

2).Fully Supervised (Force-48 illustrated)

**Illustration 7**

3). Use this wiring configuration when connecting normally closed detection devices to the zone using 6-Wires. (Force-10 illustrated)  
**Please Note:** If more than one tamper is to be wired Force 10 system then the **TAMP** circuit will need to be wired in series and not parallel.

**Illustration 8**

10. Connect the wires in accordance with the terminal block connections.

<b>- 12V+</b>	Connect to a regulated D.C. power source, observing correct polarity.
<b>TAMP</b>	Connect to a Tamper or 24 Hr. zone, NC in the control panel. Note these are normally closed switch contacts which <b>open</b> when the tamper opens.
<b>ZONE</b>	Connect to an Alarm zone, NC in the control panel. Note these are normally closed relay contacts which <b>open</b> when the detector alarms.

## Walk Testing

- Apply power and allow 3 minutes for warming up and stabilizing.
- Adjust the vertical pattern angle per Fig.1 below.
- Walk slowly across the field of view (in opposite directions) and observe the LED – it lights whenever you enter or exit a sensitive beam. Allow 5 seconds between each test for the unit to stabilize.
- After testing, the LED can be disabled to prevent unauthorized tracing of the coverage pattern. To disable the LED, remove the jumper from the left and middle pins of the LED selector (ON) and place it across the middle and right pins (OFF).

## Specifications

Operating Voltage	9 - 15V DC
Detector	Dual Element low noise Pyroelectric sensor
Current Draw	9 mA nominal at 12 VDC
Alarm Output	Normally closed dry contacts (0.5A/24V) with 15Ω resistor in series
Tamper Output	Normally closed dry contacts (0.5A/24V)
Alarm Period	2-3 seconds
Pulse Count	3 position selector 1, 2 and 4 pulse operation
LED	Walk test enabled and disabled with internal link
Coverage	90°
Range	Up to 12 meters at "0"
Operating Temperature	0 - 50°C

Due to our policy of continuous improvement we reserve the right to change specification without prior notice. Errors and omissions accepted. These instructions have been carefully checked prior to publication. However, no responsibility can be accepted by Challenger Security Products for any misinterpretation of these instructions.

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 10 SANDERSONS WAY, BLACKPOOL, FY4 4NB  
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